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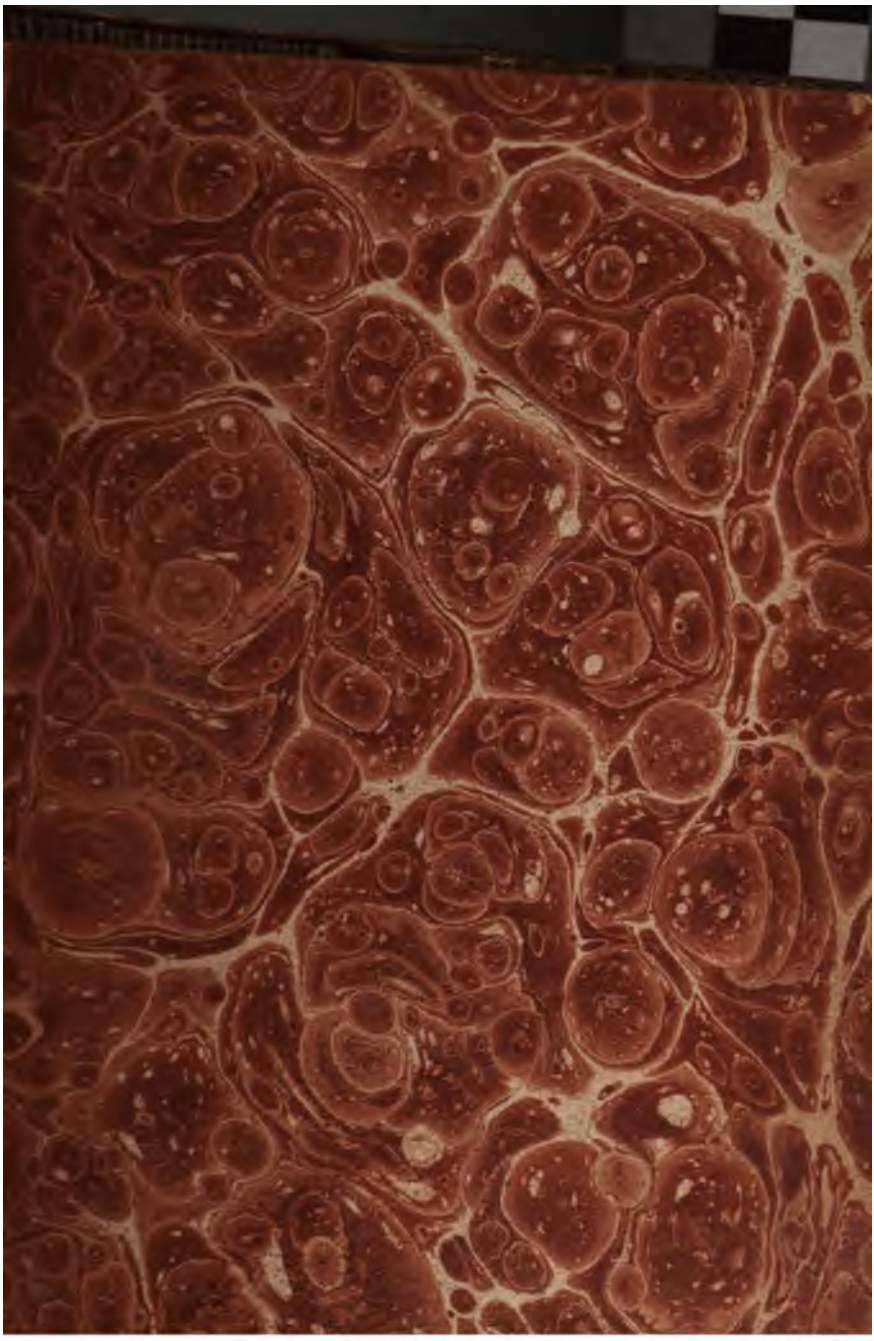

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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS;

PRESIDENT OF THE LINNEAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

——"VIRESQUE ACQUIRIT EUNDO."——*Virg.*

VOL. XVI.

LONDON:

PRINTED BY WILKS AND TAYLOR, CHANCERY-LANE;

And sold by the Proprietor, J. SOWERBY, at No. 2, Mead Place, Lambeth; by Messrs. WHITE, Fleet-street; JOHNSON, St. Paul's Church-yard; SYMONDS, Pater-noster-row; and by all Booksellers, &c. in Town and Country.

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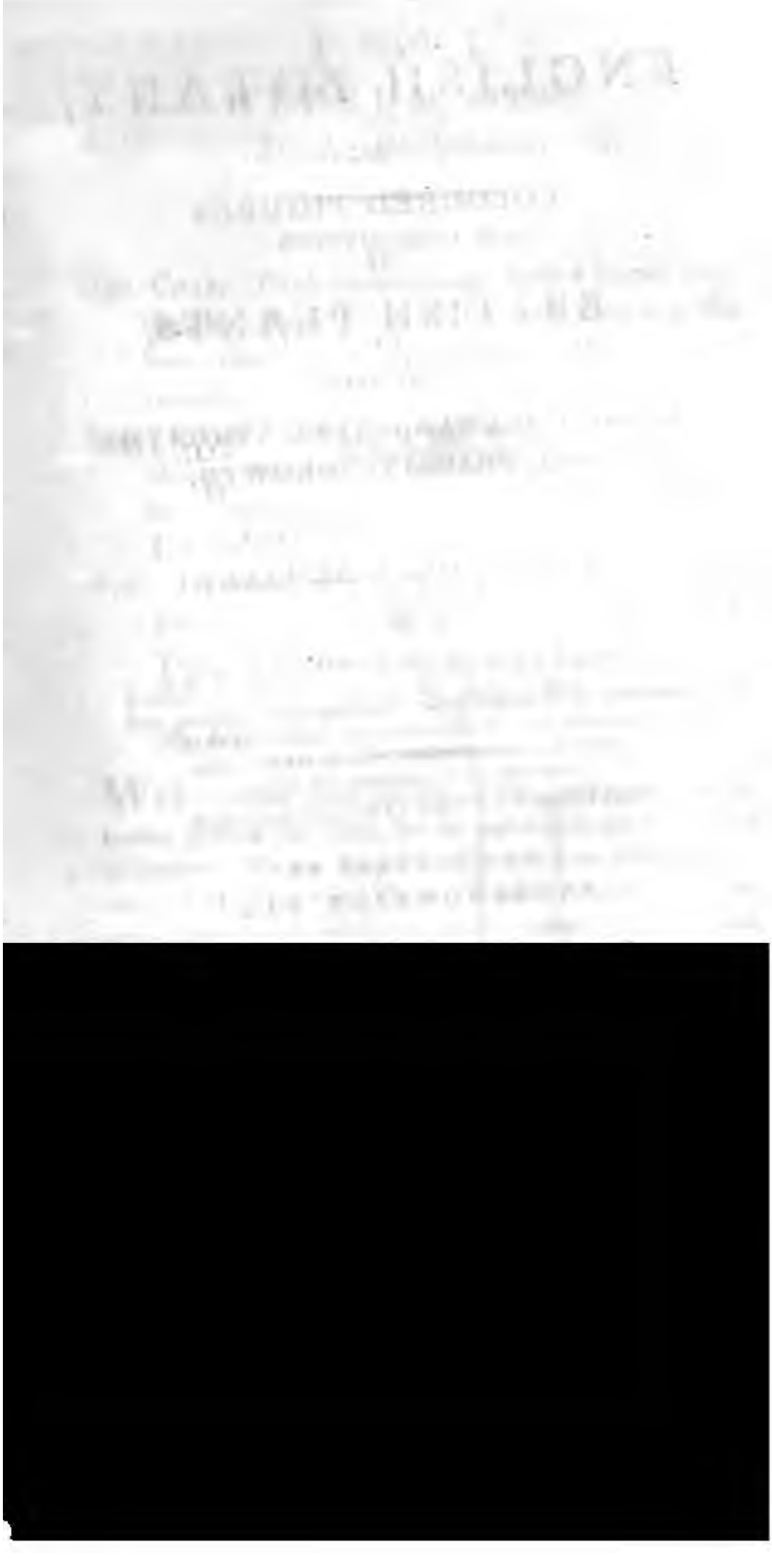


HYPNUM subtile.

Slender Feather-moss.

CRYPTOGAMIA Musci.

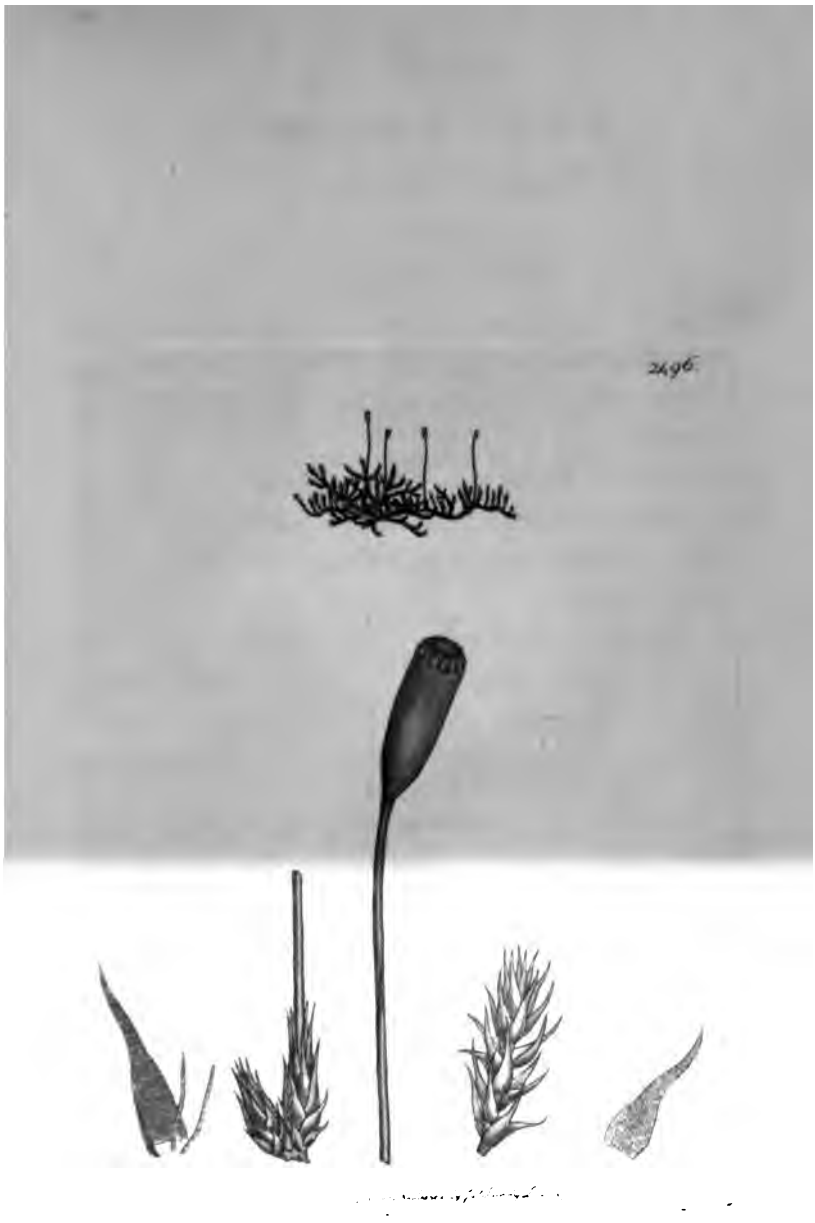
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping, with slender thread-shaped branches. Leaves lanceolate, acute, ribless, rather loosely spreading. Capsule erect. Lid conical.

SYN. Hypnum subtile. *Hoffm. Germ. v.* 2. 70. *Dicks. Crypt. fasc.* 4. 17. *Sm. Fl. Brit.* 1277. *Turn. Musc. Hib.* 135.

Leskea subtilis. *Hedw. Sp. Musc.* 221. *Crypt. v.* 4. 23. *t.* 9.

WET situations, about the roots of trees, and watery gravelly heaths, produce this moss, but the capsules do not often occur in England. We are obliged to take them from a German specimen of Mr. Turner's. The very slender, creeping, entangled stems throw up numerous, erect, short, extremely slender, round, almost always simple, branches, composing fine matted tufts. The leaves are light yellowish green, loosely clothing the branches, spreading every way, lanceolate, very acutely pointed, entire, destitute of rib or veins; and the scales of the sheath are like them, but more concave; both appear reticulated, with oblong interstices, under a microscope. The fruitstalks are capillary and reddish, hardly an inch high, ascending. Capsule either quite erect, or, when ripe, sometimes slightly inclining, cylindrical, wide-mouthed, quite smooth and even, light brown. Lid conical, short and reddish, according to Hedwig, who, finding the inner fringe with 16 simple equal teeth, refers this moss to his *Leskea*, a genus we do not adopt.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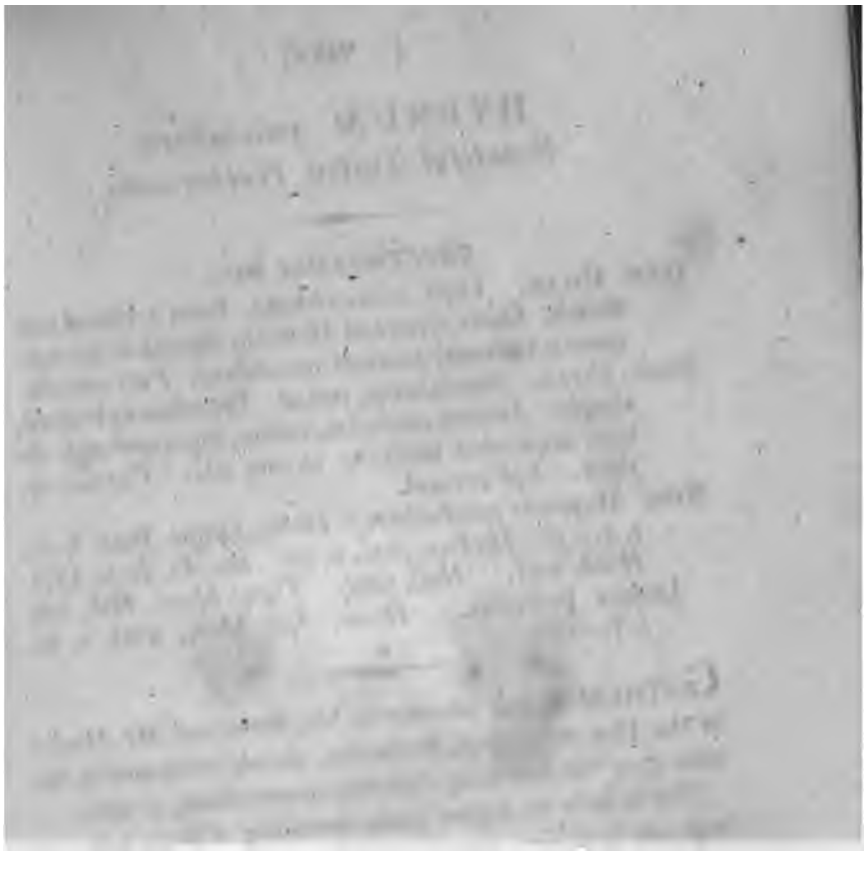


HYPNUM pulchellum.

Beautiful Tufted Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stems erect, tufted. Branches cylindrical, simple. Leaves ovato-lanceolate, taper-pointed, ribless, somewhat inclining to one side. Capsule upright. Lid conical.

SYN. Hypnum pulchellum. *Dicks. Crypt. fasc.* 2. 13. *t.* 5. *f.* 6. *H. Sicc. fasc.* 9. 22. *Sm. Fl. Brit.* 1277. *With.* 847. *Hull.* 269. *Turn. Musc. Hib.* 136.
Leskea pulchella. *Hedw. Sp. Musc.* 220. *t.* 55. *f.* 7—12.

GATHERED last summer by Mr. Borrer and Mr. Hooker in the Den of Rechip, Perthshire, already celebrated in botanic story for producing *Convallaria verticillata, t.* 128.

This is truly an elegant moss, consisting of dense tufts, an inch and half high, conspicuous for their light and splendid green colour. The branches are numerous, alternate, upright, simple and cylindrical. Leaves imbricated, rather inclining to one side, shining, ovato-lanceolate, concave, en-

Published by Jas Sowerby London

HYPNUM polyanthos.

Thread-shaped Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping, much branched, round. Leaves lanceolate, taper-pointed, imbricated, erect, without ribs. Capsule erect. Lid pointed.

SYN. Hypnum polyanthos. *Schreb. Lips.* 97. *Sm. Fl. Brit.* 1278. *Turn. Musc. Hib.* 137.

H. filiforme. *Huds.* 497.

H. filicifolium. *Linn. Mant.* 2. 310.

H. filifolium. *With.* 862. *Hull.* 273.

H. sericeum ramosius et tenuius, capsulis acuminatis. *Dill. Musc.* 327. *t.* 42. *f.* 62. *Herb. Dill.*

H. repens trichoides terrestre viridius minus, capitulis cernuis, minùs tumidis. *Raii Syn.* 84.

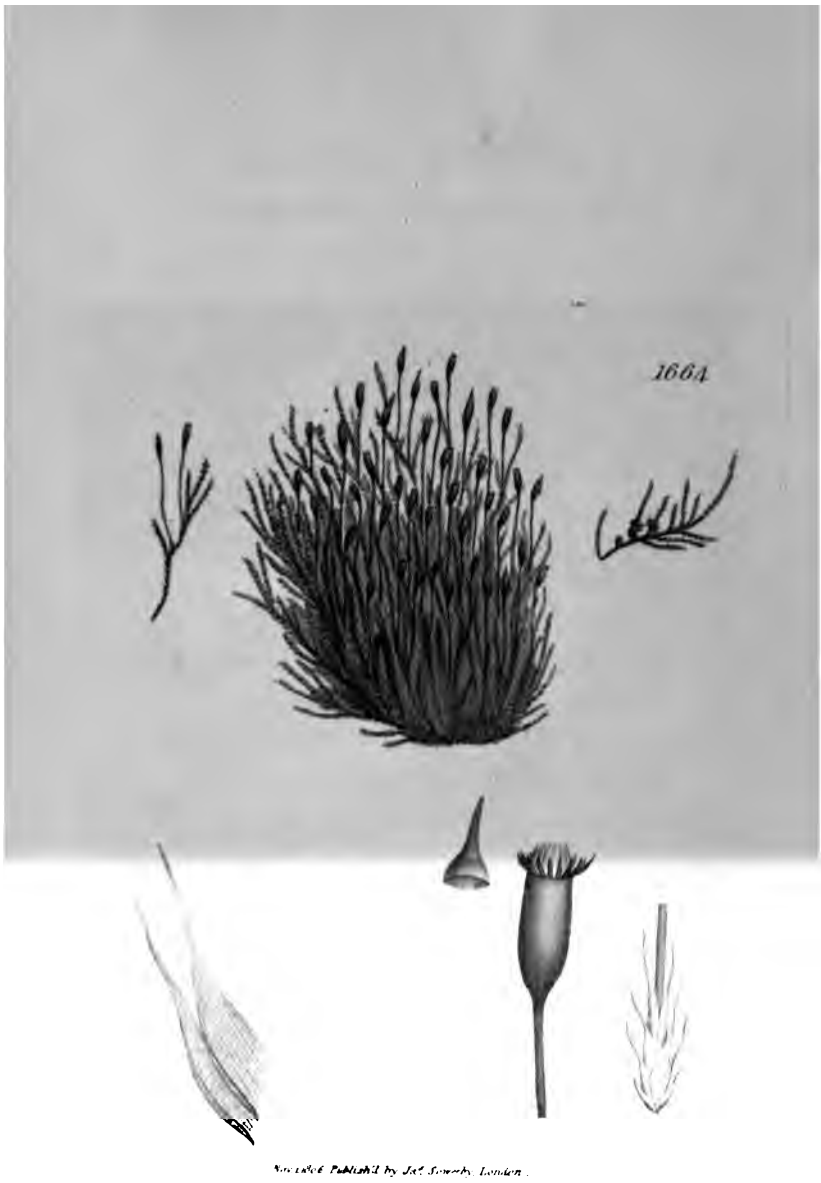
Leskea polyantha. *Hedw. Sp. Musc.* 229. *Crypt. v.* 4. 4. *t.* 2.

L. filiformis. *Sibth.* 303.

A FREQUENT species about rotten wood and old trees, bearing capsules in the early spring.

Stems creeping, entangled, in dense patches, throwing up many slender, cylindrical, leafy, often pinnated, branches. Leaves with a silky gloss, light yellowish green, small, imbricated every way, rarely inclined a little to one side, lanceolate, broad, entire, ending in a long taper point, but without any rib or vein. Their reticulations are oblong and linear. Sheaths numerous, long, pale; their leaves long-pointed. Fruitstalk half an inch or more in length, erect, red, spiral when dry. Capsule upright, cylindrical inclining to an elliptical figure, rather narrow mouthed, red-brown, smooth. Lid convex, with a longish beak, as figured by Dillenius; Mr. Turner justly observes that German specimens have a shorter lid, as represented by Hedwig, and we find it so in Swiss ones, yet there seems no other difference. Its length varies with us.

In the first edition of Hudson *filiciforme* was printed by mistake for *filiforme*; hence arose the above confusion of names.



Novr 1806 Published by Jas Sowerby London

HYPNUM attenuatum.

Taper-branched Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem much branched. Branches incurved. Leaves ovate, pointed, imbricated, single-ribbed; the upper ones rather leaning one way. Capsule erect. Lid conical.

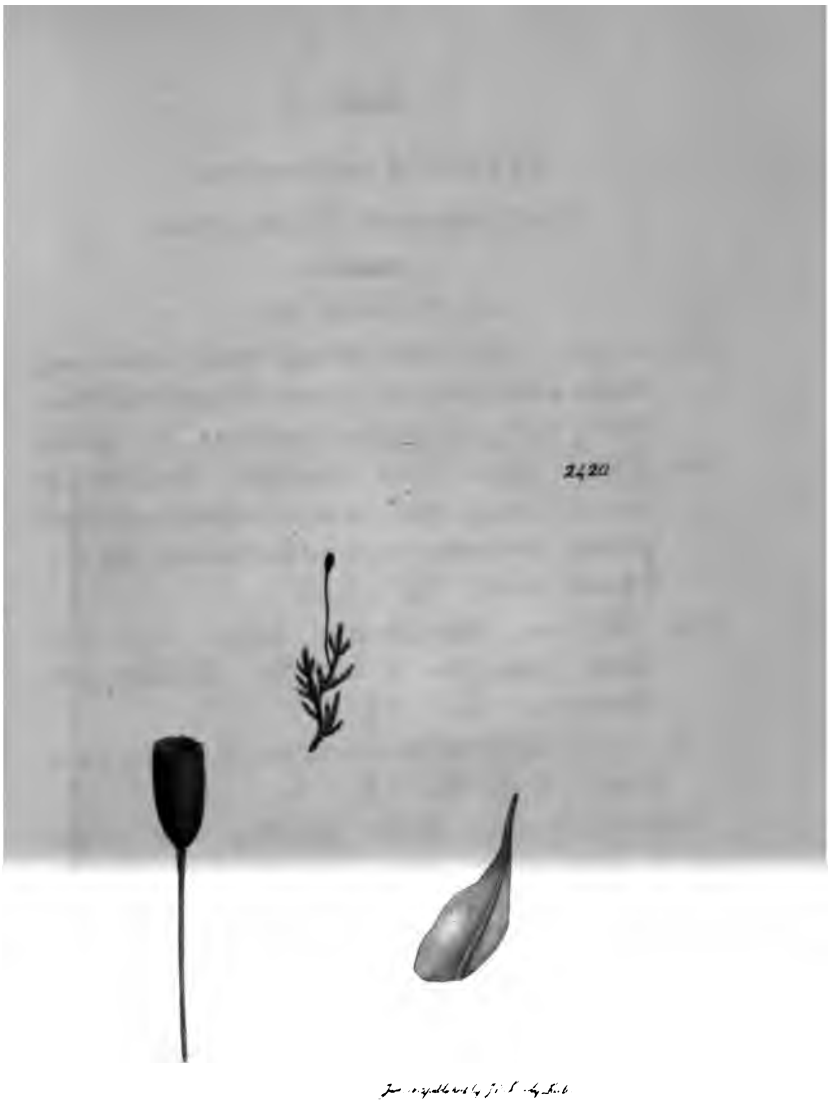
SYN. Hypnum attenuatum. *Schreb. Lips.* 100. *Dicks. Crypt. fasc.* 2. 13. *Sm. Fl. Brit.* 1279. *With.* 860. *Hull.* 272.

H. repens trichodes arboreum majus, cauliculis ramosis. *Dill. Musc.* 331. *t.* 42. *f.* 66.

Leskia attenuata. *Hedw. Sp. Musc.* 230. *Crypt. v.* 1. 33. *t.* 12.

SUCH as we have only can we here present to our friends. Dillenius never saw the fruit of this moss, nor have we more than one aged capsule, on the specimen given by Mr. Dickson, gathered by him on trunks of trees in Scotland. It accords exactly with the specimens of Dillenius, and, if we are not much mistaken, with some, destitute of fructification, sent by Dr. R. A. Hedwig.

The stems are very much branched, leafy, ascending, entangled, the branches and their extremities incurved. Leaves imbricated every way, close-pressed when dry, dull-green, or tawny, ovate, broad, short, entire, single-ribbed, taper-pointed; the upper ones rather curved, the same way as the branch. Sheaths pale. Fruitstalk an inch high, wavy, dark red. Capsule erect, cylindrical or somewhat ovate. Lid, according to Hedwig, much shorter than the capsule, conical, obtuse.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5.

HYPNUM medium.

Long-headed Feather-moss.

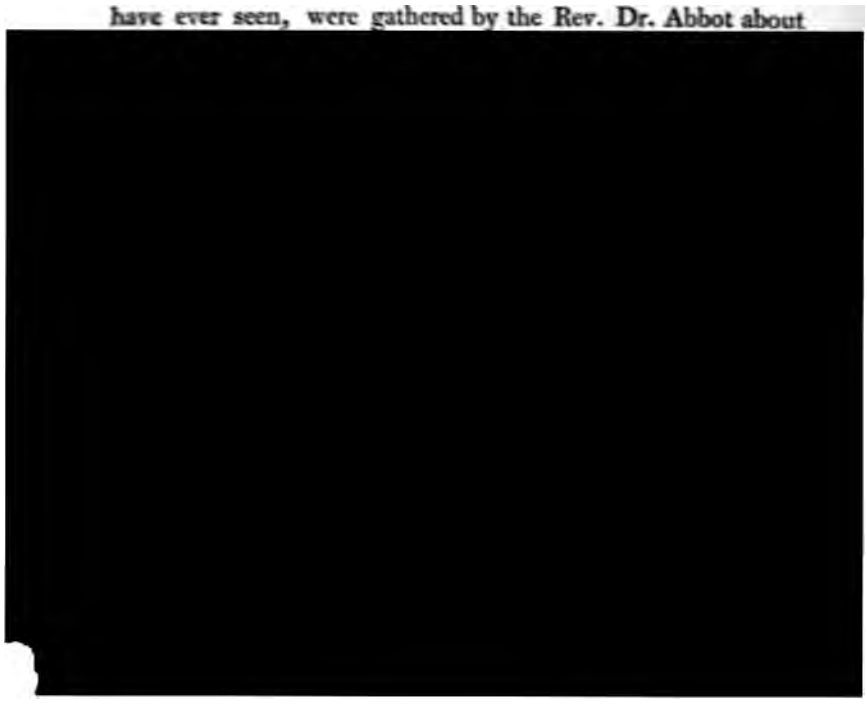
CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches scattered. Leaves ovato-lanceolate, acute, single-nerved, imbricated. Capsule cylindrical, slightly elliptical, erect.

SYN. Hypnum medium. *Dicks. Crypt. fasc.* 2. 12. *Sm. Fl. Brit.* 1281. *With.* 847. *Hull.* 269.
H. trichodes, capsulis oblongis in setis brevioribus. *Dill. Musc.* 331. *t.* 42. *f.* 65.
Leskea polycarpa. *Hedw. Sp. Musc.* 225.

MR. DICKSON discovered this *Hypnum* on the trunks of trees in Scotland, and Mr. Templeton has observed it in Ireland upon stones. Our specimens, the only English ones we have ever seen, were gathered by the Rev. Dr. Abbot about



6.

HYPNUM inundatum.

Marsh Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches erect. Leaves ovate, concave, single-ribbed, somewhat inclining to one side. Capsule cylindrical, erect.

SYN. Hypnum inundatum. *Dicks. Crypt. fasc.* 4. 17. *Sm. Fl. Brit.* 1281. *Turn. Musc. Hib.* 143.

H. heterophyllum aquaticum, polycephalum, repens. *Dill. Musc.* 293. *t.* 37. *f.* 27, B.

Leskea paludosa. *Hedw. Sp. Musc.* 221. *Crypt. v.* 4. 1. *t.* 1.

GATHERED by the late Mr. W. Brunton upon trees in rivulets near Ripon, Yorkshire. The late Mr. R. Teesdale observed the same on the trunks of willows, chiefly about the roots, in Yorkshire, Wiltshire, and at Chiswick near London, bearing capsules from June to September. Our specimens all agree with those of Dillenius, and with what Dr. Swartz

Published by Lee Priory London.

7.

HYPNUM sericeum.

Silky Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches adscending, crowded. Leaves ovate, pointed, erect, with three nerves. Lid conical.

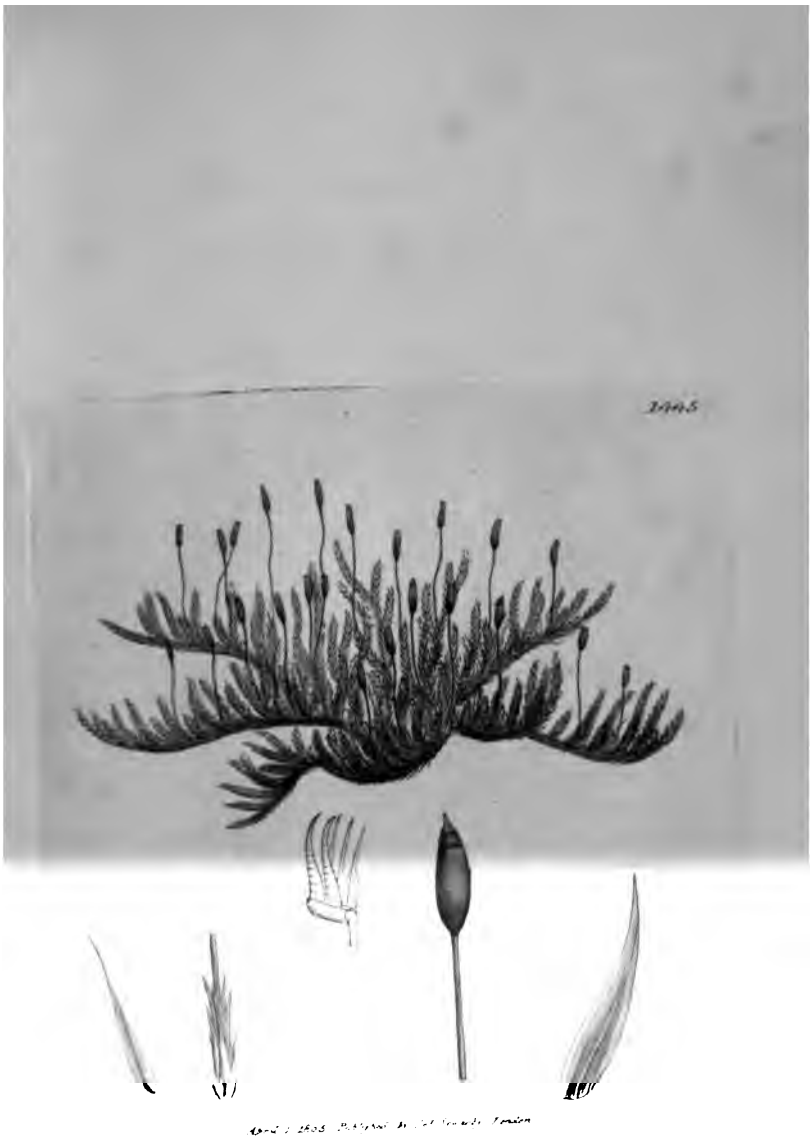
SYN. Hypnum sericeum. *Linn. Sp. Pl.* 1595. *Sm. Fl. Brit.* 1282. *Huds.* 505. *With.* 864. *Hull.* 274. *Relh.* 430. *Abbot.* 251. *Curt. Lond. fasc.* 2. *t.* 69.

H. vulgare sericeum recurvum, capsulis erectis cuspidatis. *Dill. Musc.* 323. *t.* 42. *f.* 59.

H. repens trichoides terrestre luteo-virens vulgare majus, capitulis erectis. *Raii Syn.* 84.

Leskea sericea. *Hedw. Sp. Musc.* 228. *Crypt. v.* 4. 43. *t.* 17.

Neckera sericea. *Sibth.* 305.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8 Climacium

HYPNUM dendroides.

Tree-shaped Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem erect, simple. Branches clustered, terminal. Leaves ovate, single-ribbed, finely serrated. Lid pointed. Capsules erect.

SYN. Hypnum dendroides. *Linn. Sp. Pl.* 1593. *Sm. Fl. Brit.* 1283. *Huds.* 503. *With.* 859. *Hull.* 272. *Relh.* 430. *Abbot.* 250. *Dicks. Dr. Pl.* 96. *H. Sicc. fasc.* 13. 21. *Ehrh. Crypt.* 16. *Turn. Musc. Hib.* 138.

H. dendroides sericeum, setis et capsulis longioribus erectis. *Dill. Musc.* 313. *t.* 40. *f.* 48.

H. erectum, arbusculam referens, ramulis subrotundis confertim nascentibus. *Raii Syn.* 81.

FOUND in moist shady woods and boggy grassy pastures, producing its fruit, though very rarely, in spring, summer, or autumn. Mr. Mackay gathered our specimens on the island of Innesfallen, Killarney, in August 1805, at which time some capsules were quite ripe, others just beginning to swell.

The species before us is readily known by its tree-like form of growth, which gives it a pretty and peculiar aspect. The roots are long and creeping. Stems solitary, simple and scaly. Branches clustered, cylindrical, straight, acute, covered with imbricated shining leaves, which vary in colour, and are ovate, rather minutely serrated, furnished with a rib and 2 longitudinal plaits. Sheath cylindrical. Capsules erect, slenderly elliptical. Lid conical, pointed. Inner fringe divided almost to the base into uniform slender teeth: hence Swartz has referred it to *Neckera*; and his opinion is sanctioned by the colour and texture of the part in question.

Hedw. Musc. Published by Jas. Sowerby, London.

7.

HYPNUM curvatum.

Curve-branched Bushy Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches clustered, incurved. Leaves elliptical, concave, entire, single-ribbed. Lid tapering. Capsule erect.

SYN. Hypnum curvatum. *Swartz. Musc. Suec.* 64. *Sm. Fl. Brit.* 1284. *Dicks. Crypt. fasc.* 4. 18. *Turn. Musc. Hib.* 139.

H. myosuroides. *Hedw. Sp. Musc.* 266. *Crypt. v.* 4. 20. *t.* 8. *Huds.* 508, 3.

H. myosuron. *With.* 865. *Hull.* 274.

H. myosuroides crassius, capsulis erectis. *Dill. Musc.* 316. *t.* 41. *f.* 50.

H. repens, triangularibus angustis foliis, ramulis subrotundis. *Dill. in Raii Syn.* 83.

VERY frequent on the trunks of trees, more particularly in

1366

10. Isothecium

HYPNUM myosuroides.

Mouse-tail Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches clustered, incurved. Leaves lanceolate, pointed, serrated, single-ribbed. Capsule drooping as it ripens.

SYN. Hypnum myosuroides. *Linn. Sp. Pl.* 1596. *Sm. Fl. Brit.* 1285. *Huds.* 507. *With.* 865. *Hull.* 274. *Relh.* 431. *Abbot.* 251. *Turn. Musc. Hib.* 140.

H. myosuroides tenuius, capsulis nutantibus. *Dill. Musc.* 317. *t.* 41. *f.* 51.

H. polyanthon, triangularibus angustis foliis. *Dill. in Raii Syn.* 83.

Leskia myosuroides. *Sibth.* 303.

PLENTIFUL on limestone rocks in mountainous countries, bearing fruit in the spring and summer. Mr. Turner gathered our specimen in Anglesea.

This species differs from *H. curvatum, t.* 1566, in not being above half so large, and in having narrower and less concave leaves, which are finely serrated. The capsules moreover are, when they begin to ripen, no longer perfectly erect, as in the foregoing, but become inclined or drooping; insomuch that the close affinity of these two species in habit and general structure can alone justify us in placing the present in that section of its genus distinguished by upright capsules. It must however be remarked that these capsules droop only by a bend in their stalks, and are not of themselves arcuate or incurved. The lid is shorter than in *H. curvatum*, and a little bent.

1867

HYPNUM nigro-viride.

Dark-green Silky Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, pinnated. Leaves ovate, pointed, concave, ribless, slightly curved to one side. Lid conical, pointed.

SYN. Hypnum nigro-viride. *Dicks. Crypt. fasc.* 4. 18. *Sm. Fl. Brit.* 1285. *Turn. Musc. Hib.* 141.

H. myosuroides δ. *Huds.* 508. var. 2. *With.* 865. *Hull.* 274.

H. myosuroides sericeum tenuius, capsulis erectis. *Dill. Musc.* 318. *t.* 41. *f.* 53.

FOR the specimen here represented we are obliged to Charles

1620

HYPNUM Donnianum.

Donnian Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stems tufted, simple or divided, bearing fruit from their base. Leaves imbricated every way, ovate, without nerves. Capsule cylindrical, erect.

SYN. Hypnum Donnianum. *Sm. Fl. Brit.* 1286.

WE believe this moss has never been noticed by any other botanist than Mr. G. Donn, who found it, in August 1802, on a bank by the side of a rivulet, upon the high mountains of Cairngorm (vulgarly called Corum Gorum) in Inverness-shire, nor has he seen it elsewhere.

The whole plant has a pale-green shining silky appearance. The stems in the specimens described in *Fl. Brit.* were simple, but we have recently seen others once or twice divided; they

24446

/3.

HYPNUM complanatum.

Flat Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnated. Leaves in two ranks, obtuse with a little point, compressed, without a nerve. Lid beaked, oblique. Sheath elongated.

SYN. Hypnum complanatum. *Linn. Sp. Pl.* 1588. *Sm. Fl. Brit.* 1286. *Huds.* 495. *With.* 844. *Hull.* 268. *Relh.* 431. *Abbot.* 244. *Lightf.* 742. *Turn. Musc. Hib.* 144.

H. pennatum compressum et splendens, capsulis ovatis. *Dill. Musc.* 268. *t.* 34. *f.* 7.

H. repens filicifolium ramosum, ramulis appressis et magis complanatis. *Raii Syn.* 87.

Leskea complanata. *Hedw. Sp. Musc.* 231. *Sibth.* 302.

ABUNDANT in woods about the roots and stems of trees. In the former situation it often forms dense tufts; in the latter it is pressed close to the bark. In either case the whole plant is singularly flat, as if it had been placed between the leaves of a book. The fructification is produced in March or April, but by no means generally.

Each plant is about 4, 5, or more inches in length, doubly pinnated, the branches two-ranked as well as the leaves, which are closely imbricated, compressed, ovate-oblong, obtuse, entire, without vein or nerve, of a pale shining green, membranous, tipped with a small point. The young points of the branches are often long and taper, bearing a few, more distant, leaves. Sheaths about a third of the length of the fruit-stalks, which are slender, red upwards. Capsule erect, elliptical, short. Lid obliquely beaked.

2499

HYPNUM trichomanoides

Blunt Fern-like Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem imperfectly pinnated. Branches all obtuse. Leaves in two ranks, scimitar-shaped, pointless, without a nerve. Lid awl-shaped. Sheath short.

SYN. Hypnum trichomanoides. *Schreb. Lips.* 88. *Sm. Fl. Brit.* 1287. *With.* 844. *Hull.* 268. *Relh.* 431. *Turn. Musc. Hib.* 145.

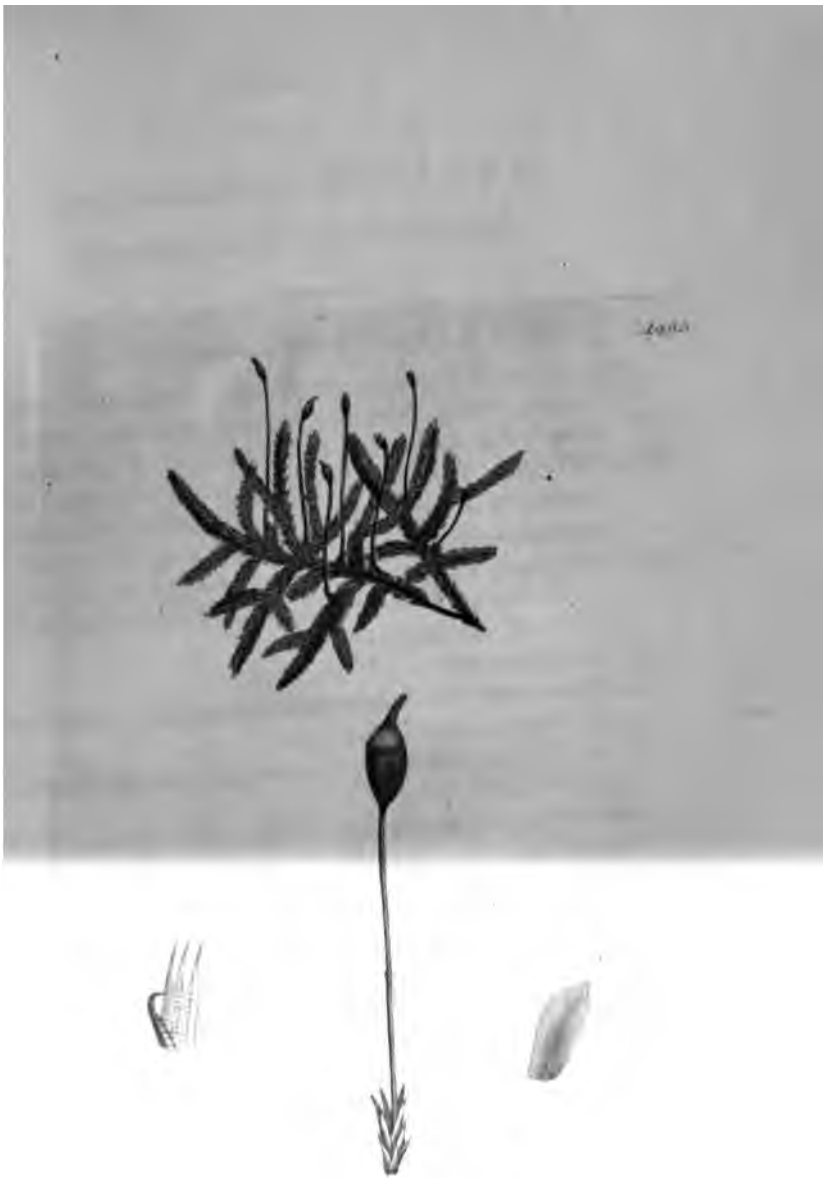
H. complanatum β. *Huds.* 495.

H. pennatum trichomanoides splendens ramosum. *Dill. Musc.* 269. *t.* 34. *f.* 8.

H. erectum filicifolium ramosum, pinnulis obtusis. *Dill. in Raii Syn.* 87.

Leskea trichomanoides. *Hedw. Sp. Musc.* 231. *Sibth.* 303.

ON the trunks of trees or on the ground, bearing capsules in February or March. Our specimens were gathered at Studley near Rippon, by Mr. W. Brunton, who justly remarks that the much shorter sheath of the fruit-stalk serves well to distinguish this moss from the preceding, of which Hudson made it a variety. The stems moreover are much shorter, and less regularly pinnated. Branches not running out into a taper point. Leaves slightly recurved into the form of a scimitar, a little convex, with scarcely any point. They have been thought finely serrated, but we believe it to be an optical deception occasioned by their reticulated texture. The lid of the capsule is longer and slenderer than in *H. complanatum*. The inner fringe is, as in that, simply and regularly toothed, which makes the character of Hedwig's *Leskea*.



HYPNUM denticulatum.

Sharp Fern-like Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Leaves two-ranked, ovato-lanceolate, acute, entire, without a nerve. Capsule cylindrical, drooping. Lid conical.

SYN. Hypnum denticulatum. *Linn. Sp. Pl.* 1588. *Hedw. Sp. Musc.* 237. *Crypt. v.* 4. 81. *t.* 31. *Huds.* 494. *With.* 843. *Hull.* 267.

H. denticulatim pennatum, pinnulis duplicatis recurvis. *Dill. Musc.* 266. *t.* 34. *f.* 5.

H. repens filicifolium non ramosum, pediculis et capitulis longioribus ad radicem egredientibus, foliolis utrinque duplicatis. *Raii Syn.* 88.

FOUND in shady rather moist places, bearing its fruit in March and April.

The root is perennial. The stems form tufts, and are either

1260

HYPNUM crenulatum.

Crenate Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches mostly simple. Leaves imperfectly two-ranked, ovate, acute, finely notched, single-nerved. Lid conical.

SYN. Hypnum crenulatum. *Sm. Fl. Brit.* 1289.

GATHERED near Newcastle by Mr. Winch. We are obliged to Mr. Turner for specimens, as well as for pointing out the characters which indicate it to be a species hitherto nondescript.

It is perennial, and appears to grow on rotten wood or decayed bark of trees. It is next akin to *H. denticulatum*, but larger in size and darker in colour. The stems creep to some extent, throwing up numerous, spreading, mostly simple branches. Leaves imbricated in two principal rows, but less exactly than in the last, shining, ovate, sharp-pointed, but little concave, not reticulated, minutely crenate, except at the base, furnished with a central nerve, which scarcely reaches to the point. Stalks red and shining, from a pale sheath. Capsule drooping and at length somewhat curved, of an elliptic-cylindrical figure, brown, darker at the base. Lid conical. Fringe reddish brown.

HYPNUM serrulatum.

Serrulated Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem much branched, creeping. Leaves ovato-lanceolate, sharp-pointed, serrated, with a single nerve at the base. Lid awl-shaped.

SYN. Hypnum serrulatum. *Hedw. Sp. Musc.* 238. *t.* 60. *Sm. Fl. Brit.* 1290.

WE are also obliged for specimens of this moss to Mr. Turner, who in the progress of his work on Irish Mosses has kindly communicated to us many observations, especially every fact which could only be ascertained by the authentic Hedwigian specimens in his collection.

The *H. serrulatum* was received by the celebrated Hedwig from Pennsylvania. Our specimens were gathered in Ireland by Dr. Scott; nor is it very wonderful that an American plant should be found in that country, whose moist climate moreover renders it fertile in mosses.

The roots appear to be perennial. With the time of its fructifying we are not acquainted. It is smaller than the foregoing species, and much more branched. The leaves are more or less perfectly two-ranked, deep-green, not shining, ovato-lanceolate with a taper point, obscurely reticulated, unequally and finely serrated, furnished with a central nerve which reaches only about half way from their base. Stalks red and shining. Capsule drooping, ovate-oblong. Lid awl-shaped, by which this species is, as well as by the leaves, clearly distinguished from the two last. Fringe of a rusty red.

Mr. Turner, on the authority of a specimen just received from Mr. Dickson, thinks this moss may not be distinct from his *H. confertum*.

Lond. 1 Jan. 1814. Published by Jas. Sowerby, Tavistock

[redacted]

HYPNUM lætè-virens.

Bright-green Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem threadshaped, creeping. Branches scattered, nearly simple. Leaves ovate, acute, finely serrated, single-ribbed. Lid flattish.

SYN. Hypnum lætè-virens. *Sm. Fl. Brit.* 1290. *Turn. Musc. Hib.* 149.

H. rotundifolium. *Dicks. Crypt. fasc.* 2. 10; excluding the synonym. *With.* 845. *Hull.* 268.

FOR this we are also indebted to Mr. Dickson, who gathered it about the roots of trees in some Scottish woods. Dr. Scott is said to have collected the same in Ireland. We cannot adopt the synonym of Scopoli's *rotundifolium*, though there is a considerable likeness in his figure to ours; but his lid is pointed, ours flat.

The stems are slender, creeping and scaly, throwing up numerous, simple or divided, short, nearly lanceolate branches. Leaves imbricated in two rows, bright green, ovate, acute, finely serrated, with a fine central rib, scarcely visible to the end. Fruitstalk short, tawny. Sheath-leaves with a twisted serrated point, but no rib. Capsule ovate, inclining, more or less curved. Fringe brown. The lid is wanting in our present specimen; but we have found it, in another authentic one in Mr. Turner's possession, nearly flat, with a small central prominence.

2553

HYPNUM intricatum.

Matted Hypnum.

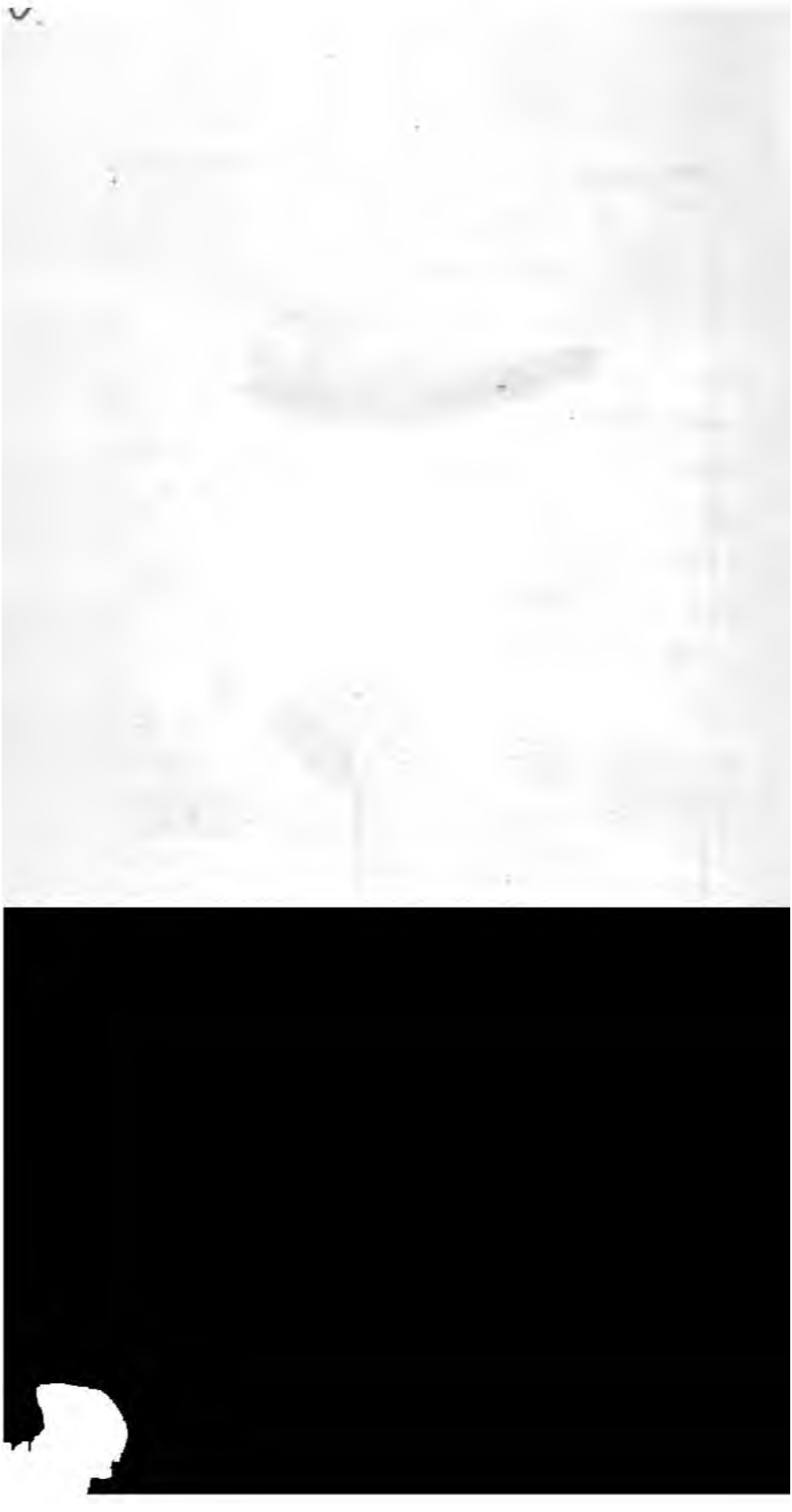
CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſule* with a lid. *Veil* ſmooth. *Flower-ſtalk* from a lateral tubercle inveſted with ſcales.

SPEC. CHAR. Shoots creeping, with ſhortiſh branches. Leaves ſpreading, lanceolate, taper-pointed. Capſules urn-ſhaped, inclining, with a recurved beak.

SYN. Hypnum intricatum. *Schreb. Fl. Lipſ.* 99. *Dickſ. Crypt. faſc.* 2. 10. *With. Bot. Arr. v.* 3. 120.

THIS moſs was firſt diſcovered in England by Mr. Robert Teeſdale, F.L.S. in ſome woods on the ſouth-eaſt ſide of the river at Matlock-bath, from whence Dr. Smith ſent it to Mr. Dickſon, and from his original ſpecimens our figure was drawn. It well agrees with Schreber's deſcription, and with the figures



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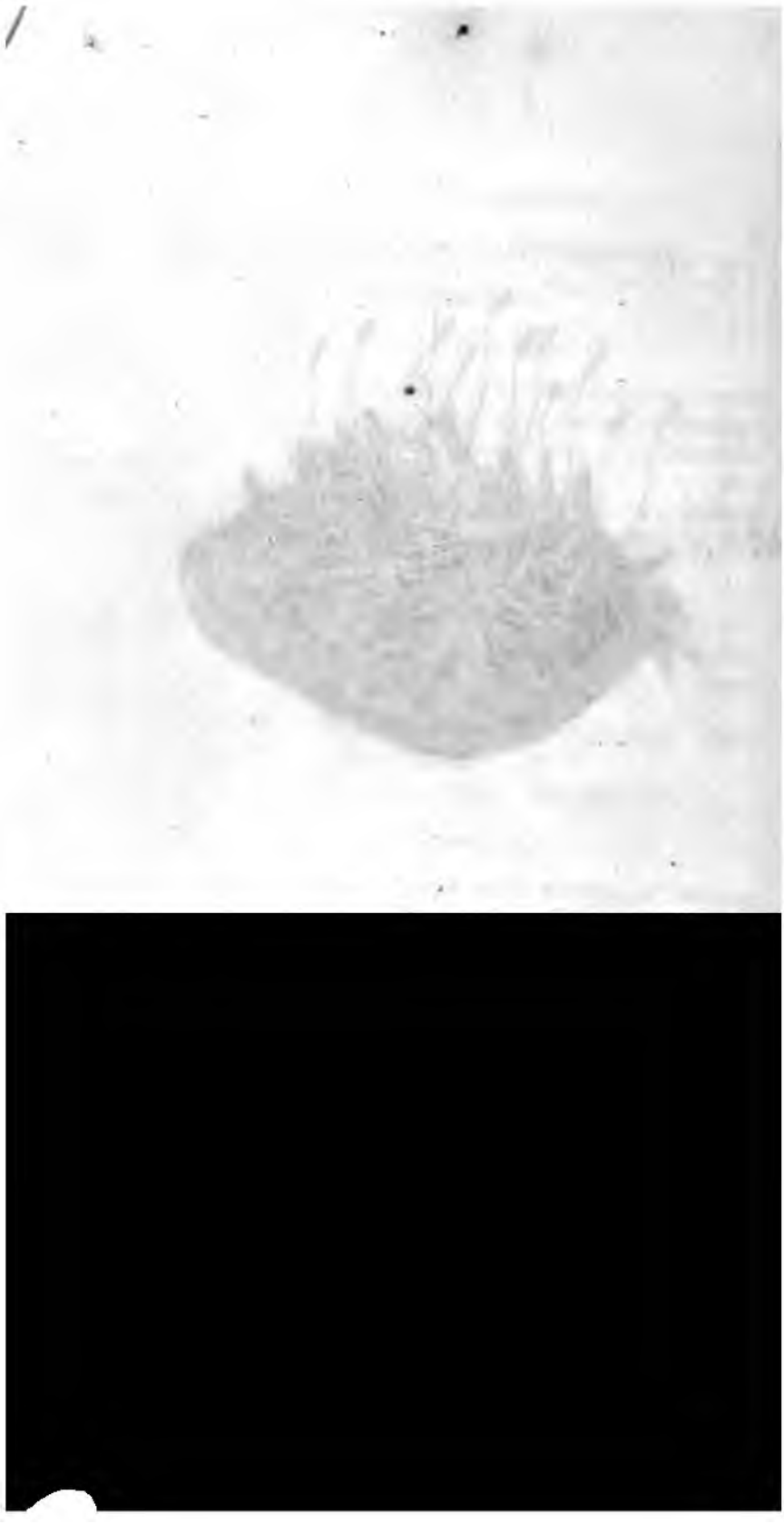


Pubd by J. Sowerby London

HYPNUM ruscifolium.

Long-beaked Water Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem branched. Leaves ovate, acute, minutely serrated, single-ribbed, imbricated, obscurely two-ranked. Lid awl-shaped.

SYN. Hypnum ruscifolium. *Dicks. Crypt. fasc.* 3. 10. *Sm. Fl. Brit.* 1292. *With.* 848. *Hull.* 269. *Relh.* 433. *Sibth.* 297. *Abbot.* 246.

H. rutabulum δ. *Huds.* 497.

H. riparioides. *Hedw. Sp. Musc.* 242. *Crypt. v.* 4. 10. *t.* 4.

H. foliis rusciformibus, capsulis subrotundis. *Dill. Musc.* 298. *t.* 38. *f.* 31; and *t.* 40. *f.* 44, A.

NOT rare on stones, posts and mill-wheels in rivers, bearing fruit from March to September. Stems perennial, branched, floating, black, varying in length according to the strength of the current: hence we presume Mr. Dickson's *H. prolixum*

HYPNUM Swartzii.

Swartzian Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, much branched. Leaves obscurely two-ranked, remote, ovate, finely serrated, single-ribbed. Lid awlshaped, curved. Stalk rough.

SYN. Hypnum Swartzii. *Turn. Musc. Hib.* 151. *t.* 14. *f.* 1. *Sm. Fl. Brit.* 1293.
H. atro-virens. *Swartz. Musc. Suec.* 65; exclusive of the synonyms.

MR. TURNER received this originally from Ireland. Our specimens were gathered by S. Hailstone, Esq. in Bell-bank wood, near Bingley, Yorkshire.

The stems are procumbent and creeping, much and irregularly branched, divaricated and loosely spreading, very slender, leafy. Leaves of a more or less deep green, remote, not imbricated, spreading, not very accurately, in two rows, ovate, acute, slightly concave, single-ribbed, finely and sharply serrated. Sheath pale, of numerous, recurved, lanceolate, serrated scales. Fruit-stalks scarcely an inch long, erect, crimson, rough with minute tubercles. Capsule ovate, short, smooth, drooping. Lid awlshaped, taper, the length of the capsule, slightly curved. Fringe of a tawny yellow.

It has been lately suggested to us that this may be only a variety of *H. prælongum*, *t.* 2035, the difference in the disposition of their leaves being, certainly, very slight. We cannot, however, be convinced that Mr. Turner's variety β, whose fructification we have not seen, is the same species with either.

HYPNUM undulatum.

Waved Feather-moſs.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Fringe* double: outer of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-ſtalk* from a ſcaly ſheath.

SPEC. CHAR. Stem procumbent, moderately branched. Leaves imbricated in two principal rows, waved, entire, without a main rib.

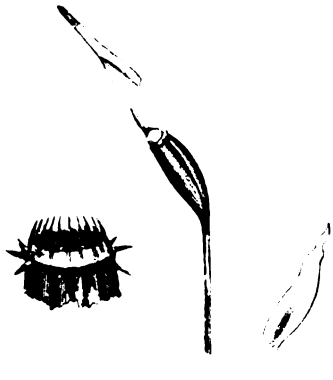
SYN. Hypnum undulatum. *Linn. Sp. Pl.* 1589. *Hedw. Sp. Muſc.* 242. *Hudſ.* 495. *With.* 849. *Hull.* 269. *Lightf.* 744. *Dickſ. H. Sicc. faſc.* 6. 22. *Ehrh. Crypt.* 26.

H. pennatum undulatum, lycopodii inſtar ſparſum. *Dill. Muſc.* 271. *t.* 36. *f.* 11.

H. repens criſpum, cauliculis compreſſis, lycopodii in morem per terram ſparſis. *Raii Syn.* 88.

WE are happy to lay before the public a figure of this elegant *Hypnum*, which is very rarely found in fructification, and of which no plate occurs in the works of Hedwig. It is peculiar to dry mountainous woods. The fruit we have obtained from Bingley woods, Yorkſhire, by favour of the Rev. Mr. Hailſtone, and it has alſo been obligingly communicated to us from Ireland, by Dr. Scott and Mr. Templeton. It is produced from April to Auguſt.

This ſpecies is eaſily known by its large ſize, and delicate pale-green or whitiſh colour. The ſtems grow proſtrate, and are irregularly, but not very copiouſly, branched. Leaves imbricated in two principal rows, compreſſed, lanceolate, entire, tranſverſely waved, without a central rib, but with a pair of minute veins at the baſe. Fruit-ſtalks ſolitary, each from a lateral ſcaly bud. Capſule oblong, curved and furrowed when ripe. Outer fringe of 16 ſhortiſh teeth: inner a white membrane cut into 16 narrow teeth with notches between them. Lid with a curved beak not half ſo long as the capſule.



June 1 1803 Published by J. & J. Sowerby, London

24.

HYPNUM splendens.

Shining Tamarisk Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem doubly pinnate, flattish. Leaves closely imbricated every way, ovate, concave, nerveless, shining, tipped with a little point. Lid awl-shaped, recurved.

SYN. Hypnum splendens. *Hedw. Sp. Musc.* 262. *t.* 67. *f.* 6—9. *Sm. Fl. Brit.* 1295. *Sibth.* 295. *Turn. Musc. Hib.* 156.

H. parietinum. *Huds.* 499. *With.* 853. *Hull.* 271. *Lightf.* 751. *Relh.* 434. *Abbot.* 247.

H. filicinum, tamarisci foliis majoribus splendentibus. *Dill. Musc.* 274. *t.* 35. *f.* 13.

H. repens filicinum, veluti spicatum. *Raii Syn.* 86.

FOUND in dry woods and on mountainous heaths, where it bears fruit about March or April, retaining its ripe capsules a long time, but in the southern counties the fructification is not very usual.

Stems perennial, a span or more in length, decumbent, elastic and loosely entangled, proliferous, interrupted, doubly pinnate, purple and shining under the leaves, which for the most part closely cover them, and are imbricated, of a pale shining yellowish green, small, ovate, concave, without a nerve; those on the main stem obscurely serrated and long-pointed; the rest entire and pointless. The scaly sheaths are generally crowded near together, each bearing one crimson shining fruit-stalk. Capsule inclining, of a rusty hue, ovate, smooth, taper at the base. Lid taper, longish, conical at the base, recurved.

Linnæus confounded this with his dark-green unpolished *H. proliferum, Curt. Lond. v.* 1. *t.* 72; but having quoted *Dill. t.* 35. *f.* 13. for his *parietinum*, the moss before us has gone by that name.

1424

HYPNUM proliferum.

Opaque Proliferous Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem triply pinnate. Leaves heart-shaped, acute, close-pressed, very minutely serrated, opaque, with one or three nerves. Lid awl-shaped.

SYN. Hypnum proliferum. *Linn. Sp. Pl.* 1590. *Sm. Fl. Brit.* 1297. *Huds.* 499. *With.* 853. *Hull.* 270. *Relh.* 434. *Sibth.* 294. *Abbot.* 248. *Lightf.* 750. *Curt. Lond. fasc.* 1. *t.* 72. *Dicks. H. Sicc. fasc.* 14. 21. *Turn. Musc. Hib.* 157.

H. tamariscinum. *Hedw. Sp. Musc.* 261. *t.* 67. *f.* 1—5.

H. filicinum, tamarisci foliis minoribus non splendentibus. *Dill. Musc.* 276. *t.* 35. *f.* 14.

H. repens filicinum minus luteo-virens. *Raii Syn.* 86.

ONE of the most handsome Europæan mosses, very common in woods, and sometimes in exposed situations, clothing the ground or the trunks of old trees with a rich entangled tapestry. The capsules are very rarely found. They are produced in the winter or early spring. Our specimens were gathered at Studley by Mr. W. Brunton. In them the fruit-stalks are all solitary, but we have generally seen 2 or 3 from each sheath.

The stem is elegantly proliferous from its uppermost side; the branches triply pinnate, clothed with rusty down and with imbricated, close-pressed leaves, which are heart-shaped, acute, of a fine opaque (not shining) green, often yellowish; the larger furnished with 3 nerves, the rest with 1; the edges apparently entire, but Mr. Sowerby, with a high magnifier, has found them serrulated as in our plate. Sheaths awl-shaped, shining, of several lanceolate, finely serrated leaves. Fruit-stalks crimson. Capsule incurved, cylindrical, red-brown. Lid awl-shaped, curved, thick at the base.

Sept. 1. 1804. Published by W. Curtis, London.

26.

HYPNUM recognitum.

Lesser Opaque Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem doubly pinnate. Leaves heart-shaped, acute, close-pressed, three-nerved, opaque, finely serrated. Lid conical, acute.

SYN. Hypnum recognitum. *Hedw. Sp. Musc.* 261. *Crypt. v.* 4. 92. *t.* 35. *Sm. Fl. Brit.* 1298. *Roth. Germ. v.* 3. 279.

H. delicatulum. *Willden. Berol.* 321.

H. parietinum β. *Pollich. v.* 3. 135.

THIS I gathered in the neighbourhood of Matlock bath, Derbyshire, in 1790; of the precise spot I am not certain. The plant has hitherto either not been observed in any other part of Britain, or has been confounded with *H. proliferum*, from which it is very distinct. The stem and branches are not half so large as in that species, nor do they grow in the same proliferous manner. The latter are only doubly pinnated. The leaves are finely serrated, and have all, for the most part, 3 nerves, of which the middle one is very conspicuous. The leaves of the sheaths are long and taper, very inconspicuously serrated towards their points. The fruit-stalks are always solitary, reddish, shorter than those of the last-mentioned, but longer in proportion to the branches. Capsule incurved, cylindrical, brown. Lid short and conical, with a minute point, a little curved. By the shape of the lid these 2 species are essentially distinguished.

27.

HYPNUM umbratum.

Striated Proliferous Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem doubly pinnate. Leaves heart-shaped, pointed, finely serrated, with several longitudinal plaits, but no nerves. Lid conical, with a small point.

SYN. Hypnum umbratum. *Ehrh. Crypt.* 66. *Sm. Fl. Brit.* 1298. *Hedw. Sp. Musc.* 263. *t.* 67. *f.* 10—12. *Turn. Musc. Hib.* 158.

ORIGINALLY discovered in Ireland by the late Dr. Scott. Our present specimen was gathered by Dr. Taylor, on Sefing mountain, in the county of Wicklow.

This species, no less rare than the *H. recognitum*, *t.* 1495, is of a rather larger size, and not so regularly bipinnate. The stem is interruptedly pinnate in the first instance, its copious branches either simple or again pinnate, but not with great regularity. Leaves of a fine, bright, yellowish, rather shining green, spreading, heartshaped, dilated, pointed, minutely serrated, destitute of ribs or veins, but furnished with many longitudinal plaits or furrows. Sheaths often several together, rather lax, of several oblong, serrated, rough-awned leaves. Fruitstalks crimson, rough, an inch and half or two inches long. Capsule inclining, ovate. Lid short, conical, obtuse, with a small point.

2505

HYPNUM prælongum.

Long Trailing Feather-moss.

CRYPTOGAMIA Musci.

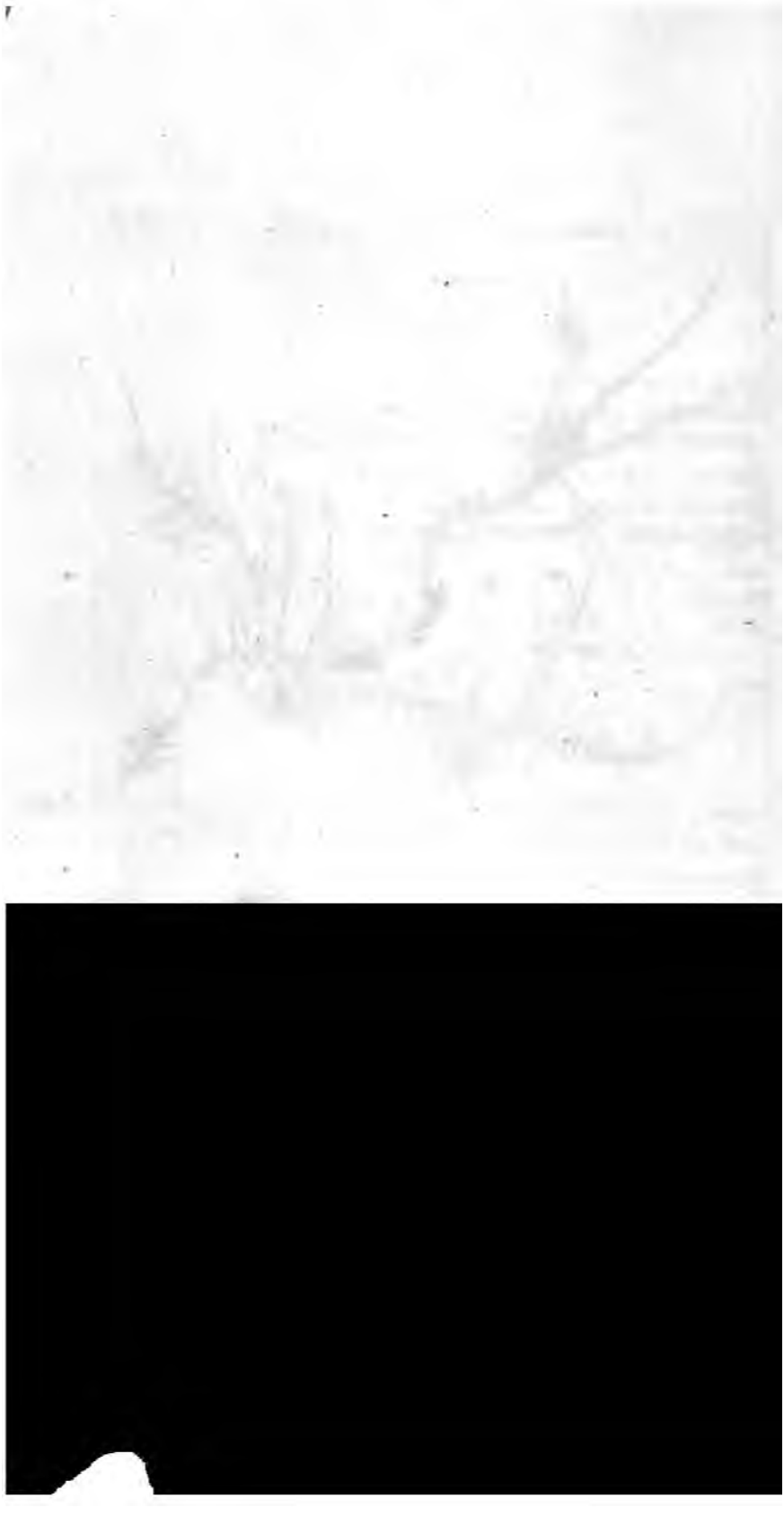
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnate, creeping. Leaves spreading every way, ovato-lanceolate, pointed, serrated, single-ribbed. Lid awlshaped, curved. Stalk rough.

SYN. Hypnum prælongum. *Linn. Sp. Pl.* 1591. *Sm. Fl. Brit.* 1299. *Hedw. Sp. Musc.* 258. *Crypt. v.* 4. 76. *t.* 29. *Huds.* 499. *With.* 855. *Hull.* 271. *Relh.* 434. *Sibth.* 295. *Abbot.* 248.
H. repens filicinum, triangularibus parvis foliis, prælongum. *Raii Syn.* 80. *Dill. Musc.* 278. *t.* 35. *f.* 15.

THIS species of *Hypnum* is frequent in moist woods, especially on a sandy or gravelly soil, and about the shady bottoms of hedges, where the morning dew, glistening among its leaves, renders it, at that time, particularly apparent. The long, slender, branched and pinnated stems creep closely over rotten wood or bark, spreading in every direction. The lateral branches are scarcely an inch long, and usually simple. Leaves small, of a pale yellowish green, rarely dark-green, spreading loosely every way, lanceolate or slightly ovate, pointed, sharply serrated, with a solitary pale-green nerve. Sheaths solitary, of several loosely recurved ovate leaves, with serrated points. Fruitstalks solitary, rather above an inch long, crimson, rough with very minute tubercles. Capsule drooping, ovate, or slightly cylindrical, a little curved. Lid awlshaped, curved, rather shorter than the capsule. Veil acute, of a pale green.

Published by J. Sowerby London



29.

HYPNUM Stokesii.

Alpine Trailing Feather-moss.

CRYPTOGAMIA Musci.

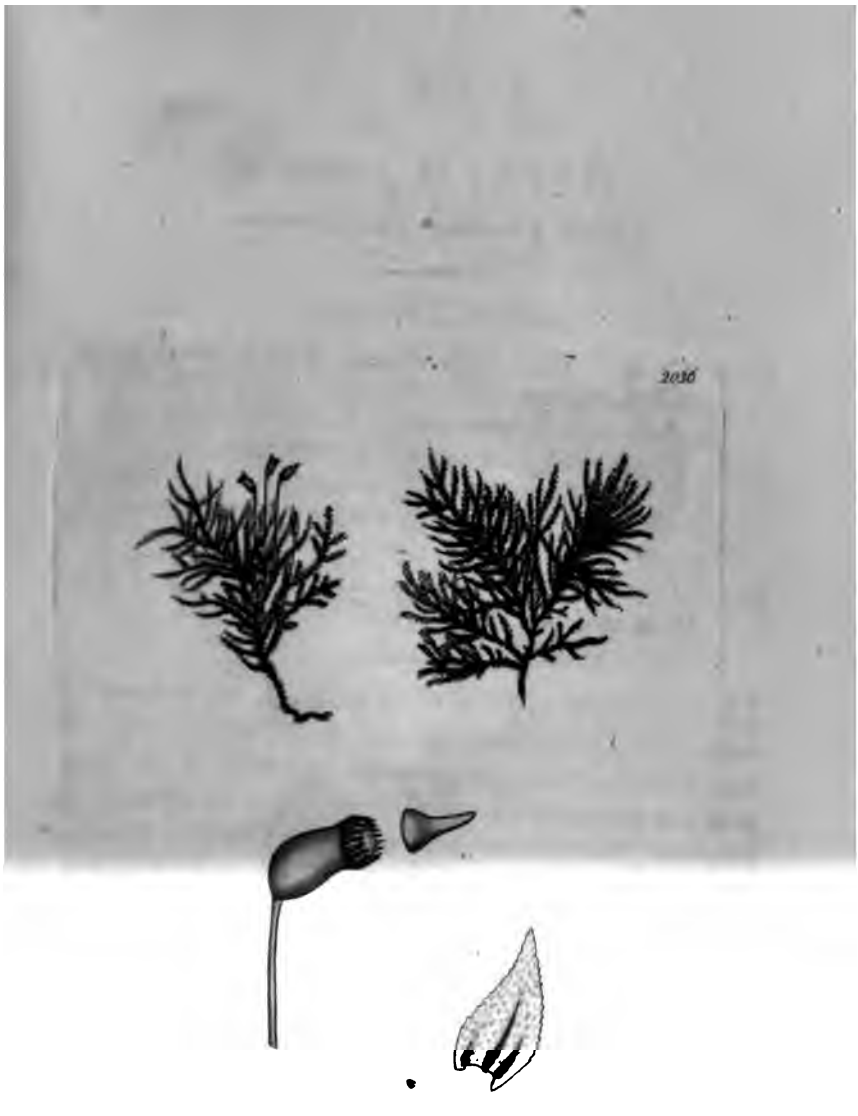
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnate. Leaves spreading every way, heartshaped, pointed, minutely serrated, single-ribbed. Capsule ovate, drooping. Lid conical, pointed.

SYN. Hypnum Stokesii. *Sm. Fl. Brit.* 1300. *Turn. Musc. Hib.* 159. *t.* 15. *f.* 2.

DISCOVERED by Dr. Whitley Stokes in the hollows of rocks under the eagle's nest at Lough Bray. Having received from Professor Swartz more perfect specimens of the fruit than had previously been seen, we have annexed a branch of his plant. This species appears intermediate between *H. umbratum*, with which it agrees much in leaves and habit, and *H. prælongum*, which it more nearly approaches in dimensions and fructification. Still we think it cannot be united to either. Dr. Swartz names it *H. Ludwigii* of Bridel, and we have been told it is *H. strigosum* of Hoffmann, *Fl. Germ. v.* 2. 76. These authorities may, by the right of priority, to which in this case we ought to submit, disturb our name, but they confirm our species.

Our plant has loosely creeping stems, with crowded pinnate or bipinnate branches. Leaves imbricated every way, spreading, of a full but bright green, somewhat shining, heartshaped, twisted, sharp-pointed, single-ribbed, not always to the extremity, more closely and finely serrated than in *H. prælongum*. Sheaths whitish. Stalks red, an inch long, scarcely rough except towards their base. Capsule drooping, ovate. Lid conical, curved, pointed, rather thicker, if we mistake not, than in the *prælongum*, *t.* 2035.



Published by J.ᵗ Sowerby London

HYPNUM abietinum.

Fir-branched Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnate, shaggy. Leaves closely imbricated every way, heart-shaped, pointed, nearly entire, with one rib and two plaits. Capsule drooping. Lid conical.

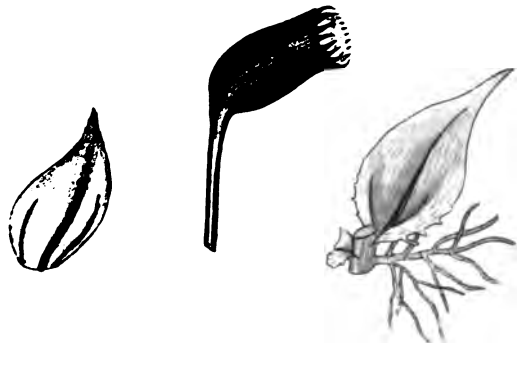
SYN. Hypnum abietinum. *Linn. Sp. Pl.* 1591. *Sm. Fl. Brit.* 1300. *Hedw. Sp. Musc.* 353. *Crypt. v.* 4. 84. *t.* 32. *Huds.* 500. *With.* 855. *Hull.* 271. *Relh.* 435. *Sibth.* 296. *Abbot.* 246. *Necker Musc.* 163.

H. lutescens, alis subulatis tenacibus. *Dill. Musc.* 280. *t.* 35. *f.* 17.

H. repens filicinum trichoides montanum, ramulis teretibus lutescentibus non divisis. *Dill. in Raii Syn.* 86.

NOT unfrequent on the dry chalky hills of Kent, Oxfordshire, &c., but the fructification is so extremely rare that Dillenius never saw it, and Necker, though he quotes the place where Linnæus describes it, asserts that it cannot be found. Our specimens of the fruit were sent by Professor Swartz.

The stems are about as long as the finger, decumbent, densely, and generally simply, pinnate, the branches short, acute, spreading. Leaves of a pale tawny opaque green, close-pressed, heartshaped, or broad ovate, sharp-pointed, entire or nearly so, a little revolute when dry, with one rib and two lateral plaits. Their reticulations seem to be elongated by age. Among the leaves the stem is clothed with dense branched jointed fibres, varying in length. Sheaths slender, close, pale. Fruitstalks 2 inches long, wavy, crimson, shining. Capsule inclining, ovato-cylindrical, curved, tinged with red, very minutely reticulated. Outer fringe red; inner yellow. Lid, according to Hedwig, conical.



HYPNUM alopecurum.

Fox-tail Feather-moſs.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Fringe* double: *outer* of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-ſtalk* from a ſcaly ſheath.

SPEC. CHAR. Root creeping. Stems erect; naked below; branched in a panicled form above. Capſules ovate, drooping, with a taper beak. Leaves ſerrated.

SYN. Hypnum alopecurum. *Linn. Sp. Pl.* 1594. *Hedw. Sp. Muſc.* 267. *Hudſ.* 503. *With.* 859. *Hull.* 272. *Relh.* 436. *Sibth.* 299. *Abbot.* 249. *Dickſ. H. Sicc. faſc.* 13. 22. *Ehrh. Crypt.* 37.

H. dendroides obſcurius, ſetis et capſulis brevioribus, ſubnutantibus. *Dill. Muſc.* 315. *t.* 41. *f.* 49.

H. paluſtre erectum arbuſculam referens, ramulis ſubrotundis. *Raii Syn.* 81.

NEITHER has this *Hypnum* been delineated by the celebrated Hedwig. It is to be reckoned among our rarer ſpecies, at leaſt in fructification. We received it in that ſtate from Mr. W. Borrer of Suſſex. Its general places of growth are moiſt and ſhady, as boggy woods, wet calcareous rocks or caverns, and the margins of caſcades. The capſules are ripened in the ſpring.

The horizontal branched roots or ſcions produce ſeveral erect tree-like ſtems; naked, and when old leafleſs, below; branched and ſubdivided above, in the form of a panicle or feather, all the branches inclining to one ſide, and their ſummits moſtly tapering and elongated. Leaves dark green, yellow when expoſed, imbricated every way, ovate, broad, concave, ſerrated, eſpecially towards the point, and furniſhed with an acute central rib. Capſules on ſhort ſolitary inclining ſtalks, ovate, ſmooth, nodding. Lid taper and almoſt as long as the capſule.

June 1. 1801. Published by Jas. Sowerby, London.

HYPNUM stramineum.

Straw-like Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem but little branched, thread-shaped, erect. Leaves elliptic-lanceolate, concave, destitute of a nerve. Lid convex, with a short point.

SYN. Hypnum stramineum. *Dicks. Crypt. fasc.* 1. 6. *t.* 1. *f.* 9. *H. Sicc. fasc.* 11. 21. *Sm. Fl. Brit.* 1303. *With.* 860. *Hull.* 273. *Turn. Musc. Hib.* 164.

COMMUNICATED long ago by Mr. Dickson, from a bog, on the west side of Hampstead heath. Mr. Turner finds this species near Yarmouth. Its slender, pale, shining, straw-coloured aspect is remarkable. The stems throw out but a few short branches, and are covered with leaves, loosely imbricated every way, which are elliptic-lanceolate, bluntish, concave, entire, destitute of any proper rib or nerve, but often, as Mr. Turner observes, furnished with a few longitudinal plaits in their lower part. Sheaths pale, close, situated about the middle of the stem. Fruitstalk upright, wavy, two inches long, of a shining red. Capsule ovate, inclining and curved, short, rusty-coloured when ripe. Lid convex or very slightly conical, with a short point. Veil pale brown with a black tip. Hedwig has not noticed this moss.

2405

2400

2400

HYPNUM confertum.

Clustered Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Leaves ovate, sharp-pointed, somewhat serrated, spreading, single-ribbed at the base. Lid awlshaped, curved.

SYN. Hypnum confertum. *Dicks. Crypt. fasc.* 4. 17. *t.* 11. *f.* 14. *Sm. Fl. Brit.* 1304.

H. clavellatum. *Huds.* 508. *With.* 866. *Hull.* 274; excluding the synonym of Dillenius.

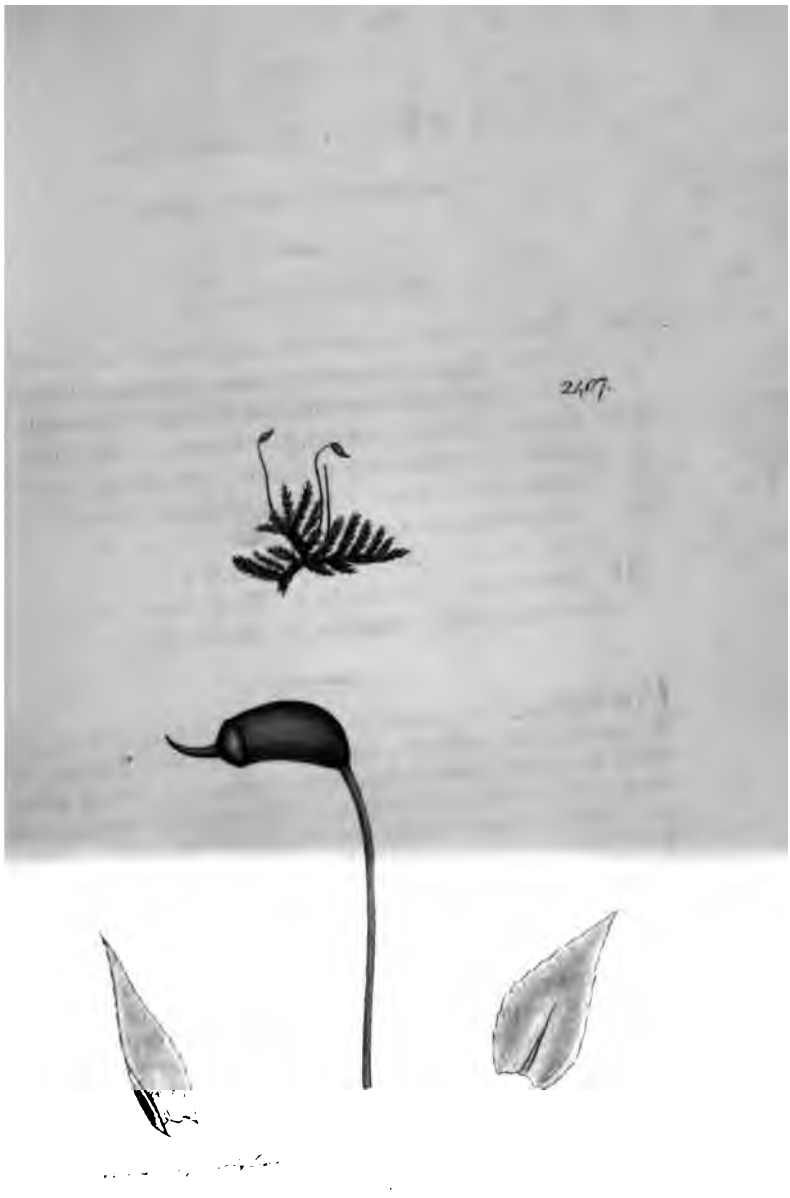
FOUND upon the trunks of trees, bearing fruit in February. We exhibit an authentic specimen from Mr. Dickson, by which his plant, that of the *Flora Britannica*, will be placed out of the reach of uncertainty. The stems are short, growing in dense tufts, and beset with many short branches. Leaves loosely imbricated in every direction, light green, ovate, concave, sharp-pointed, finely but rather distantly serrated, furnished with a central rib which vanishes entirely about the middle. Scales of the sheath much like the leaves, but rather smaller. Fruitstalks hardly an inch high, tawny or red. Capsule drooping, small, ovate, oblique. Lid convex, with a curved awlshaped beak, almost as long as the capsule.

There has been some suspicion that this species was not distinct from *serrulatum*, *t.* 1262; but the latter has more the aspect of an aquatic moss, and the leaves certainly are disposed in two ranks. Otherwise they are indeed nearly akin. Our *t.* 1038 should now be called

HYPNUM murale.

Wall Feather-moss.

The synonyms must be erased, as belonging to the present; others to replace them may be found in *Fl. Brit.* 1304, 1305.


2407.

35.

HYPNUM confertum.

Cluſtered Hypnum.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Fringe* double: *outer* of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-ſtalk* from a ſcaly ſheath.

SPEC. CHAR. Stem creeping. Branches erect, cylindrical, ſimple. Leaves cloſely imbricated, ovate, acute, minutely ſerrated, obſoletely ribbed. Capſules inclining, ovate. Lid with a long ſlender curved beak.

SYN. Hypnum confertum. *Dickſ. Crypt. faſc.* 4. 17. *t.* 11. *f.* 14.

H. clavellatum. *Hudſ.* 508. *With.* 866. *Hull.* 274.

WE have Mr. Dickſon's authority for believing this the *Hypnum clavellatum* of Hudſon; that of Linnæus, adopted entirely from Dillenius, is a Pennſylvanian moſs, unknown in Europe, though Linnæus incautiouſly ſays the contrary. The *clavellatum* of Pollich and Hedwig ſeems to be ſtill a different ſpecies.

Ours therefore has received the name of *confertum* in Mr. Dickſon's 4th *faſciculus*. It is a rare ſpecies, and was gathered at Walthamſtow by Mr. Dillwyn, bearing ripe fruit early in

1038

36.

HYPNUM velutinum.

Velvet Feather-Moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Leaves imbricated every way, ovate, pointed, serrated, single-ribbed in their lower part. Capsule ovate, drooping. Lid conical.

SYN. Hypnum velutinum. *Linn. Sp. Pl.* 1595. *Sm. Fl. Brit.* 1305. *Hedw. Sp. Musc.* 272. *Crypt. v.* 4. 70. *t.* 27. *Huds.* 506. *With.* 866. *Hull.* 274. *Relh.* 437. *Sibth.* 301. *Abbot.* 251. *Turn. Musc. Hib.* 167.

H. velutinum, capsulis ovatis cernuis. *Dill. Musc.* 326. *t.* 42. *f.* 61.

H. repens trichoides terrestre viridius minus, capitulis tumidioribus cernuis. *Raii Syn.* 84. *n.* 24.

COMMON on banks, and about the roots of trees in woods, forming dense entangled tufts and patches, and bearing ripe fruit in the early spring.

Stems creeping, perennial, densely matted together, much branched. Branches short, erect, clustered, mostly simple, cylindrical, thickly clothed in every direction with imbricated upright little leaves of a yellowish lively green, which are ovate and single-ribbed at their base, tapering into a long serrated nerveless point. Sheath of several slender pale tapering leaves without nerves. Fruitstalk about an inch long, purplish, often rough towards the top with very minute tubercles. Capsule ovate, short, curved and drooping, of a rusty brown when ripe. Lid conical, acute, reddish. Veil greenish.

Ray's No. 25 should seem to be only a slight variety of the above.

1568

37.

HYPNUM intricatum.

Matted Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Leaves lanceolate, taper-pointed, serrated, single-ribbed half way up, imbricated every way. Capsule drooping, tumid. Lid conical.

SYN. Hypnum intricatum. *Schreb. Lips.* 99. *Sm. Fl. Brit.* 1306. *Hedw. Sp. Musc.* 271. *Crypt. v.* 4. 73. *t.* 28. *Turn. Musc. Hib.* 167.

H. Teesdalii. *Dicks. Crypt. fasc.* 4. 16. *t.* 11. *f.* 13.

THE late Mr. Teesdale found this moss in Yorkshire, and communicated it to Mr. Dickson, who, not aware of its being already named, called it after its discoverer. What he had taken for *intricatum*, is now the *Teesdalii* of *Fl. Brit.* 1291, and is our *t.* 202.

The present species comes next to *velutinum*, *t.* 1568, from which it differs in being rather smaller, with narrower and more spreading leaves, and a rather more tumid capsule, much contracted at the mouth. The scales of the sheath are also much more taper-pointed, and obscurely toothed. Hedwig remarks that the ring which surrounds the mouth of the capsule consists of a double row of scales, not merely a single one, as in *velutinum*. This we have not examined. The fruit-stalk is finely granulated. Lid conical, somewhat oblique.

2421

38.

HYPNUM ſerpens.

Creeping White-veiled Hypnum.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Fringe* double: *outer* of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-ſtalk* from a ſcaly ſheath.

SPEC. CHAR. Stem creeping. Branches irregularly ſubdivided, very ſlender. Leaves ſtraight, ovate, pointed, imbricated. Capſules oblong, curved.

SYN. Hypnum ſerpens. *Linn. Sp. Pl.* 1596. *Hudſ.* 507. *With.* 865. *Hull.* 274. *Relh.* 416. *Sibth.* 302. *Abbot.* 251. *Hedw. Crypt. v.* 4. 45. *t.* 18. *Sp. Muſc.* 268.

H. trichodes ſerpens, ſetis et capſulis longis erectis. *Dill. Muſc.* 329. *t.* 42. *f.* 64.

A VERY general Moſs in moiſt ſhady places, running over decayed wood, trunks of trees, ſtones and earth, producing flowers and fruit at almoſt all ſeaſons when there is humidity in the air ſufficient to favour its growth.

Stems cloſely creeping, by means of numerous, ſhort, fibrous, perennial roots, and thickly branched. Branches irregular, ſimple or ſubdivided, very ſlender; clothed with ſmall, pale-green, upright, ovate, entire, ſharp-pointed, concave leaves,

Pubd. 1st Aug. 1818 by Jas. Sowerby London.

39.

HYPNUM atro-virens.

Dark Round-branched Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem diffuse, much branched. Leaves ovate, concave, entire, keeled, imbricated every way. Capsule drooping, obovate. Lid awl-shaped.

SYN. Hypnum atro-virens. *Dicks. Crypt. fasc.* 2. 10. *Sm. Fl. Brit.* 1307. *With.* 864. *Hull.* 274. *Turn. Musc. Hib.* 169.

H. denticulatum exiguum pendulum atro-virens. *Dill. Musc.* 332. *t.* 43. *f.* 67.

GATHERED on trees in Scotland, by Mr. Dickson, to whom we are obliged for this specimen. Dillenius had his from Patagonia. Dr. Scott is supposed to have found the same, though without fruit, in Ireland.

The stems and branches are much subdivided, leafy throughout, round, slender and rigid. Leaves of a remarkably dull and dark green, imbricated every way, broad-ovate, pointed, perfectly entire, concave, keeled, with a strong rib reaching to the point. Sheaths pale, closely imbricated, their leaves ovate, concave, entire, ribbed, with long taper points. Fruit-stalk hardly an inch long, smooth, dark red. Capsule drooping or pendulous, ovate at the base, contracted above, dilated at the mouth, brown, smooth. Lid, according to Dillenius, slender, awlshaped, curved.

2422.

40.

HYPNUM tenellum.

Tender Awl-leaved Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping, much branched. Leaves awl-shaped, ribless, entire. Capsule ovate, drooping. Lid awl-shaped.

SYN. Hypnum tenellum. *Dicks. Crypt. fasc.* 4. 16. *t.* 11. *f.* 12. *Sm. Fl. Brit.* 1308. *Turn. Musc. Hib.* 170. *Winch. v.* 1. 110.

FIRST noticed by Mr. Dillwyn about the roots of trees in Kent. The Rev. Mr. Williams has found it on the under sides of projecting stones and roots on Acton Burnell hill Shropshire, and Mr. Stone on walls in Norwich. Our present specimens were gathered by Mr. Templeton, on limestone or flint, in moist shady places near Belfast, bearing fruit in April.

It forms small dense perennial tufts of creeping stems, throwing up several short erect branches; the whole being clothed with densely imbricated, slender, awl-shaped, entire leaves, of a full bright green, without any rib, except possibly near the base. Stalks from minute sheaths, red, half or three quarters of an inch long, erect, taller than the branches, at length curved at the summit. Capsule drooping or pendulous, ovate, short, obtuse, brown, smooth, with an awl-shaped lid, about its own length. The fine slender leaves essentially distinguish this species. Neither Hedwig, nor any other foreign botanist, seems to have known it.

[1300]

HYPNUM albicans.

White Silky Feather-moss.

HYPNUM albicans.

Whitish Silky Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

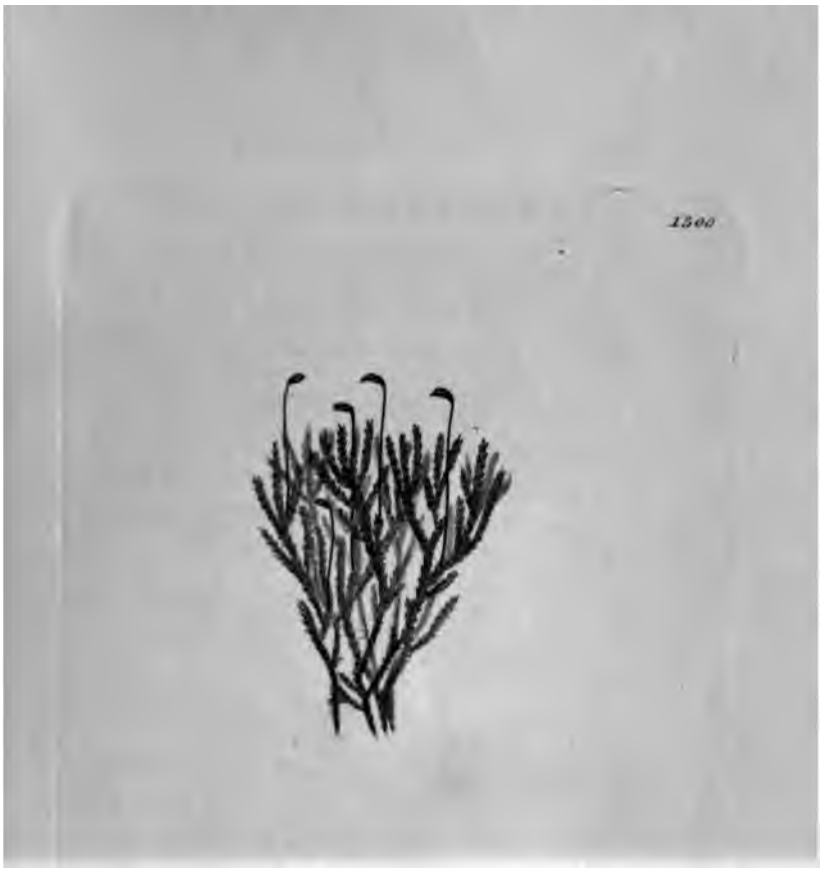
SPEC. CHAR. Stem branched, ascending. Leaves imbricated, ovate, pointed, three-nerved. Capsule ovate, curved. Lid conical, pointed.

SYN. Hypnum albicans. *Necker. Musc.* 180. *Sm. Fl. Brit.* 1309. *Hedw. Sp. Musc.* 251. *Crypt. v.* 4. 13. *t.* 5. *Dicks. Crypt. fasc.* 1. 6. *H. Sicc. fasc.* 5. 21. *With.* 850. *Hull.* 269.

H. sericeum gracile albicans, capsulis subrotundis. *Dill. Musc.* 328. *t.* 42. *f.* 63.

H. terrestre erectum humilius albicans, ramulis teretibus. *Dill. in Raii Syn.* 88.

GATHERED by Mr. Turner on the sandy cliffs at Gorleston near Yarmouth, where its fruit is to be found in March or April. In general, though this moss is common in dry sandy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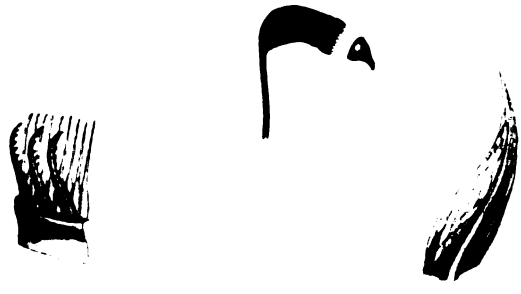


42.

HYPNUM plumosum.

Rusty Silky Feather-moss.

CRYPTOGAMIA Musci.

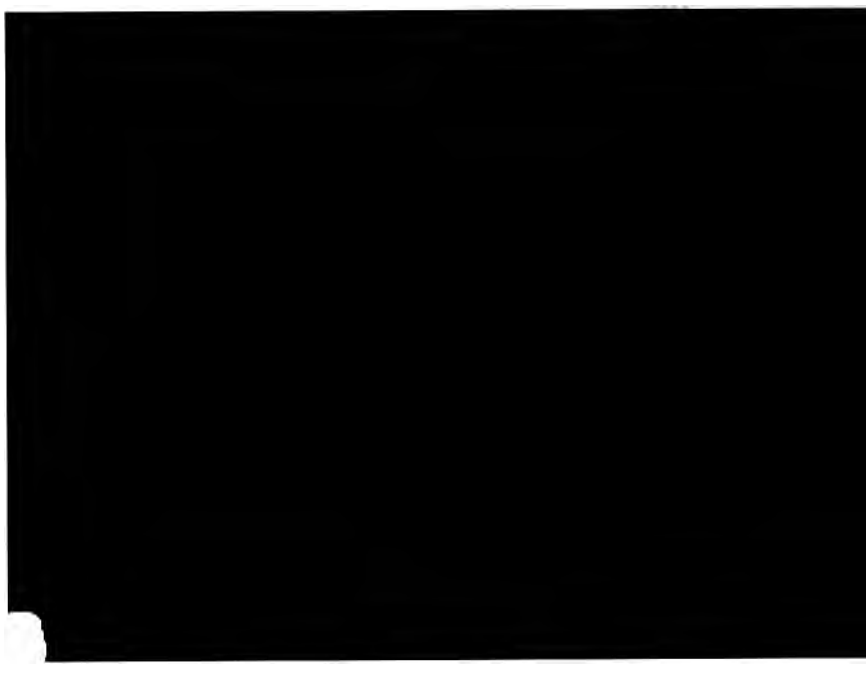
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches crowded, erect. Leaves ovate, pointed, entire, with a rib reaching half way. Capsule ovate, inclining. Lid conical.

SYN. Hypnum plumosum. *Huds. ed.* 1. 423. *Sm. Fl. Brit.* 1310. *Linn. Sp. Pl.* 1592. *With.* 852. *Hull.* 270. *Sibth.* 296. *Abbot.* 247. *Dicks. H. Sicc. fasc.* 5. 22. *Turn. Musc. Hib.* 172. *t.* 15. *f.* 1.

H. sericeum β. *Huds.* 506.

H. repens filicinum plumosum. *Dill. Musc.* 280. *t.* 35. *f.* 16. *Raii Syn.* 86.



HYPNUM implexum.

Green Matted Feather-moss.

CRYPTOGAMIA Musci.

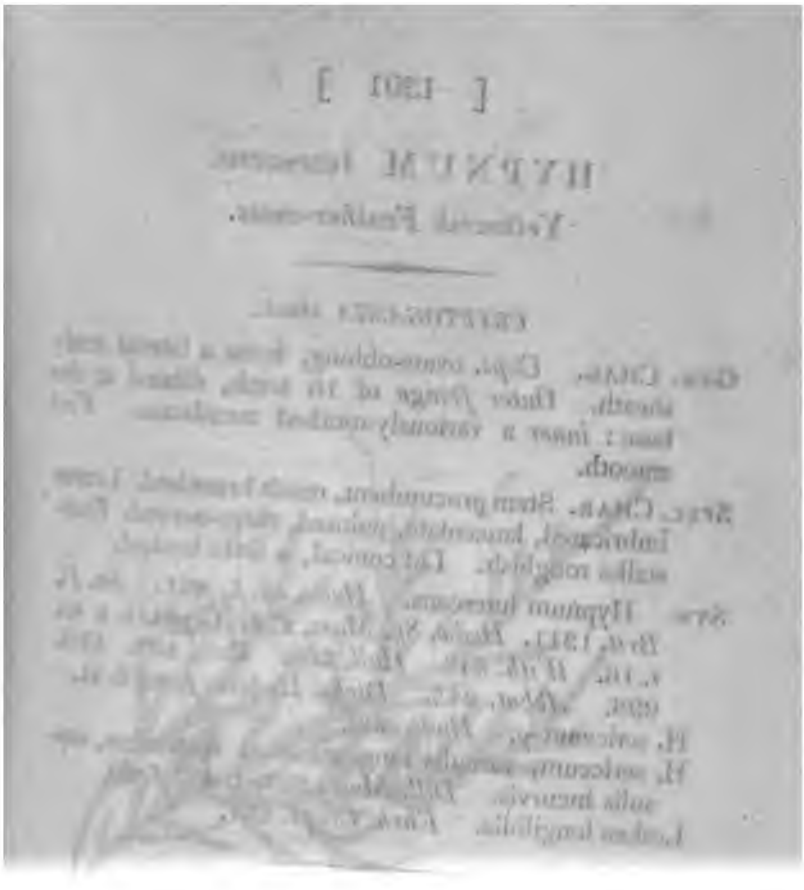
GEN. CHAR. *Calyx.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches crowded, erect. Leaves lanceolate, pointed, finely serrated, single-ribbed. Lid conical.

SYN. Hypnum implexum. *Swartz. Act. Holm. ann.* 1795. 264. *Sm. Fl. Brit.* 1310. *Turn. Musc. Hib.* 173. t. 16.

H. pinnatum. *Swartz. Musc. Suec.* 66.

COMMUNICATED by Mr. W. Brunton from stones near Ripon. It was originally noticed by Mr. G. Donn on a large stone near the foot of Ben Lawers, and afterwards in Angusshire. It has also been found in Ireland and near Newcastle. The capsules are ripened in the spring.



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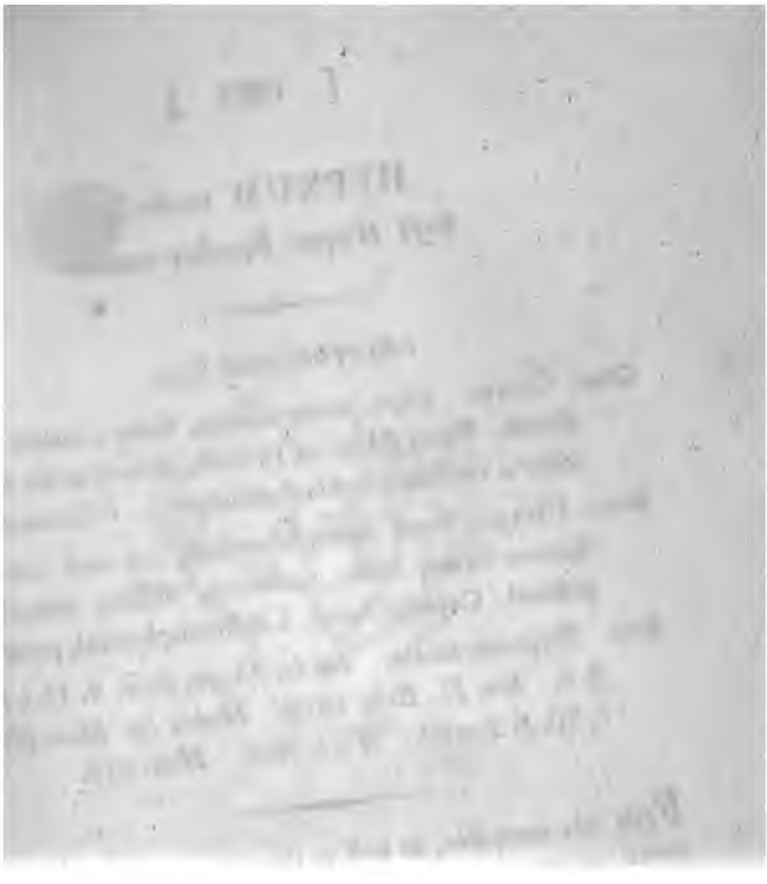


Mar 1 1809 Published by Jas Sowerby London

46.

[1599]

HYPNUM purum.

Neat Meadow Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnated. Leaves elliptical, inflated, obtuse with a small point, single-ribbed at the base. Lid conical, curved.

SYN. Hypnum purum. *Linn. Sp. Pl.* 1594. *Sm. Fl. Brit.* 1313. *Hedw. Sp. Musc.* 253. *t.* 66. *f.* 3—6. *Huds.* 504. *With.* 863. *Hull.* 273. *Relh.* 436. *Sibth.* 300. *Abbot.* 250. *Curt. Lond. fasc.* 3. *t.* 65. *Turn. Musc. Hib.* 175.

H. cupressiforme vulgare, foliis obtusis. *Dill. Musc.* 309. *t.* 40. *f.* 45.

H. terrestre erectum, ramulis teretibus, foliis inter rotunda et acuta medio modo se habentibus. *Raii Syn.* 81.

PLENTIFUL in moist and shady pastures, also about hedge banks, but not regularly producing capsules. Their most general season, according to Mr. Curtis, is November; we have also found them in the spring.

This is truly a beautiful moss, remarkable for the neat shining inflated appearance of its leaves. The stems form large light elastic tufts, growing seldom quite upright, often horizontally, and are subdivided, besides being branched in a pinnate manner. The branches are short, simple, round, acute, recurved. Both the stem and branches are clothed with closely imbricated (though inflated) broad elliptical obtuse entire leaves, each tipped with a little flat point, and marked at the base by one short nerve. Their colour is a light shining green, turning whitish with age. Sheaths cylindrical, of many pale narrow leaves. Fruitstalks solitary, red, 2 inches long, erect. Capsule elliptical, drooping, smooth, more or less curved, a little tumid at the base. Lid conical, with a curved point.

2699

HYPNUM illecebrum.

Glass-wort Feather-moss.

CRYPTOGAMIA Musci.

Gen. Char. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a various-pored membrane. *Veil* smooth.

Spec. Char. Stem irregularly branched. Branches crowded. Leaves elliptical, imbricated, obtuse with a small point, and a single obsolete nerve.

Syn. Hypnum illecebrum. *Hedw. Sp. Musc.* 252. t. 56. f. 1. 2? *Sm. Fl. Brit.* 1314. *Huds.* 504. *With.* 982. *Hull.* 275. *Salth.* 500. *Schreb. Lips.* 86. *With.* v. 1. 110.

β. compressiforme rotundius, vel Illecebræ acinulum. *Dill. Musc.* 511. t. 80. *f.* 46.

γ. minus erectum, ramulis teretibus, foliis subrotundis albo-viridibus cinctis. *Ray Syn.* 81, under α. 7.

FEW plants have been more confused than this *Hypnum*, which is so very near *purum*, t. 1598, that many persons have thought it only a variety. It differs chiefly in its more turgid

2

1.

Published by J.T. Swaysland London

HYPNUM Schreberi.

Schreberian Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

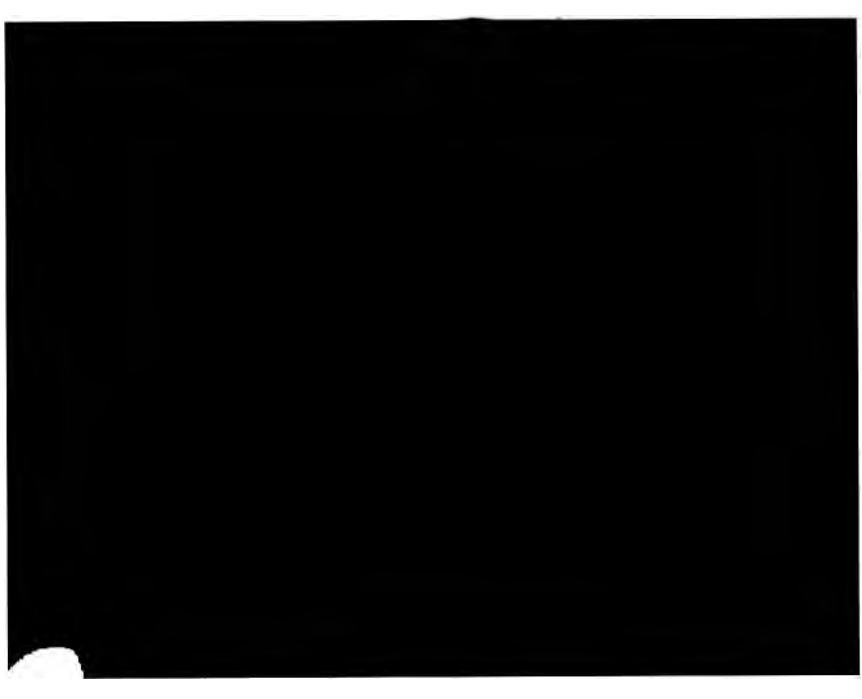
SPEC. CHAR. Stem pinnated, slightly compressed. Leaves elliptical, concave, slightly pointed, ribless. Lid conical, with a little straight point.

SYN. Hypnum Schreberi. *Willden. Berolin.* 325. *Sm. Fl. Brit.* 1315. *Dicks. Crypt. fasc.* 4. 18. *Turn. Musc. Hib.* 176.

H. purum. *Ehrh. Crypt.* 311. *Huds.* 504, β. *With.* 863, var. 2. *Hull.* 273, var. 2.

H. cupressiforme tenuius et compressius. *Dill. Musc.* 312. *t.* 40. *f.* 47.

H. longum erectum, foliis angustis caulibus appressis. *Raii Syn.* 83.



1621

HYPNUM nitens.

Shining Yellow Feather-moss.

CRYPTOGAMIA Musci.

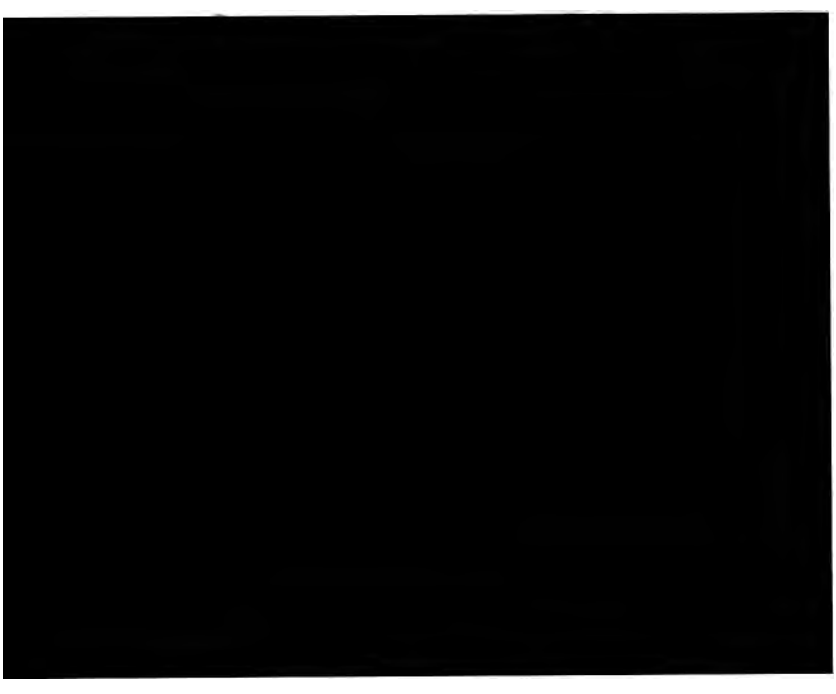
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

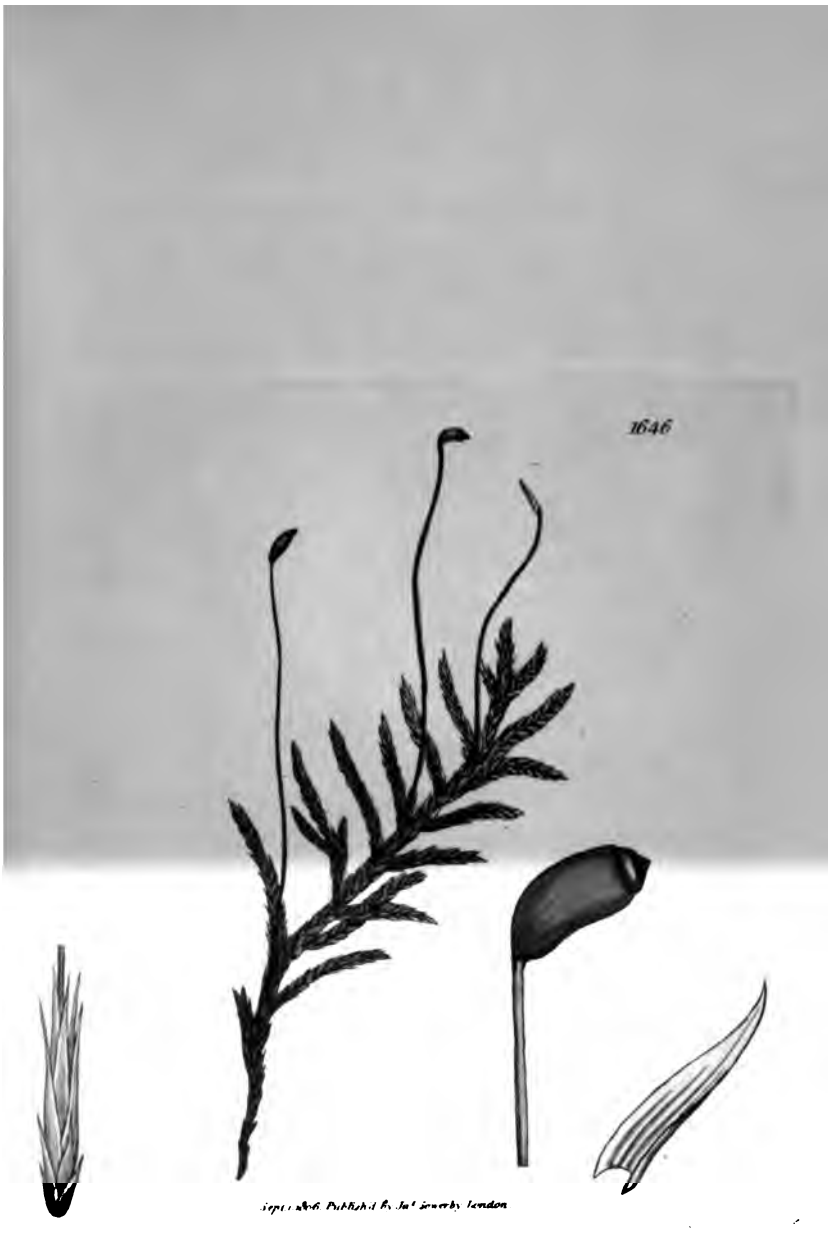
SPEC. CHAR. Stem erect. Branches short. Leaves lanceolate, pointed, striated. Capsule oblong, curved and inclining.

SYN. Hypnum nitens. *Schreb. Lips.* 92. *Sm. Fl. Brit.* 1516. *Linn. fil. Musci. Musc.* 34. *Hedw. Sp. Musc.* 255. *Dicks. Crypt. fasc.* 2. 12. *H. Sicc. fasc.* 1. 24. *Web.* 552. *Hull.* 270.

H. palustre erectum trichoides, ramulis crebris, luteo- et rufo-virentibus, glabris. *Dill. Musc.* 303. *t.* 39. *f.* 37.

GATHERED by the Rev. Mr. Dalton in marshy ground

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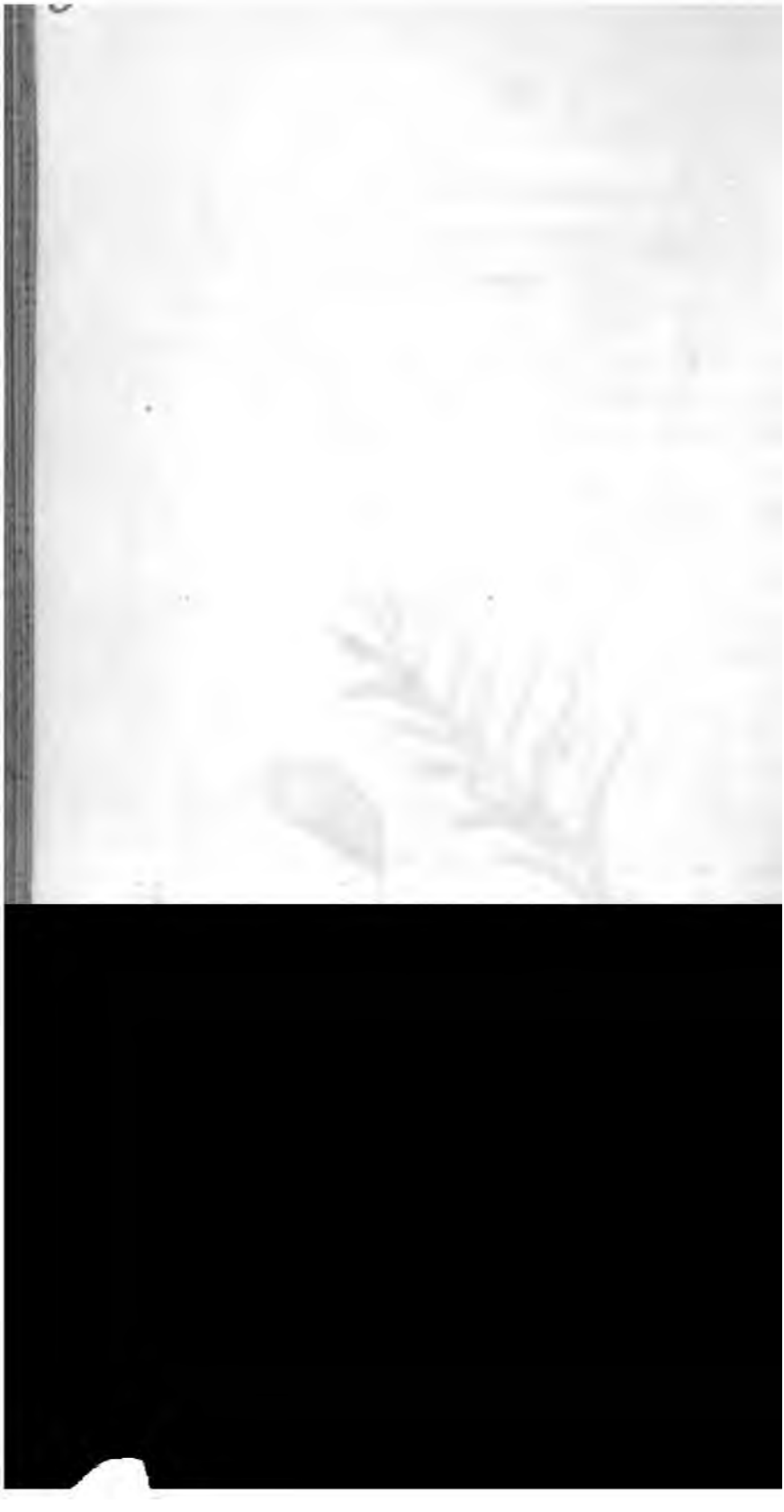


HYPNUM rufescens.

Shining *Reddish Feather-moss.*

CRYPTOGAMIA Musci.

GEN. CHAR. Caps. ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base; *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem erect. Branches elongated. Leaves somewhat imbricate, pointed, striated, entire. Capsule cylindrical. Lid conical.

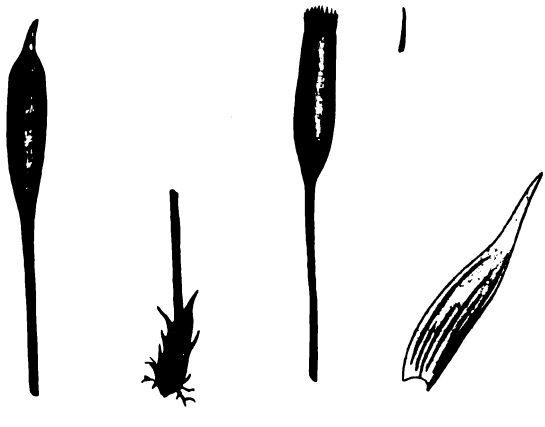
SYN. Hypnum rufescens. *Sm. Fl. Brit.* 1316. *Dicks. Crypt. fasc.* 3. 6. t. 8. f. 4. *With.* 846. *Hull.* 269. *Engl. Germ.* t. 2. 59. under n. 16.

H. caulibus vix ramosis, foliis subulatis aristatis, capsulis gracilibus. *Hall. in Act. Helvet.* t. 5. 12. n. 34.*

H. n. 1284. *Hall. Hist.* t. 3. 35; excluding the synonym of Dillenius.

FIRST noticed by Mr. Dickson on wet rocks in the Highlands of Scotland. Mr. W. Borrer found it covering the perpendicular rocks by the falls of Moness, and has favoured us with the only genuine fructification we have ever seen, which is a very great rarity. Its supposed fruit and the accompaniments described in *Fl. Brit.* from the Linnæan herbarium, appear to be those of an undescribed *Hypnum*, or

2296



HYPNUM cuspidatum.

Pointed Bog Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem pinnate, round. Branches pointed. Leaves oblong-lanceolate, nerveless, smooth, imbricated every way. Lid conical, acute.

SYN. Hypnum cuspidatum. *Linn. Sp. Pl.* 1595. *Sm. Fl. Brit.* 1317. *Hedw. Sp. Musc.* 254. *Huds.* 505. *With.* 862. *Hull.* 273. *Relh.* 437. *Sibth.* 300. *Abbot.* 250. *Dicks. H. Sicc. fasc.* 7. 20. *Turn. Musc. Hib.* 177.

H. palustre, extremitatibus cuspidatis et pungentibus. *Dill. Musc.* 300. *t.* 39. *f.* 34.

H. repens palustre, foliis triangularibus per caules expansis, extremitatibus convolutis et acuminatis. *Raii Syn.* 82.

[2016]

HYPNUM silesianum.

Silesian Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a various-toothed membrane. *Veil* smooth.

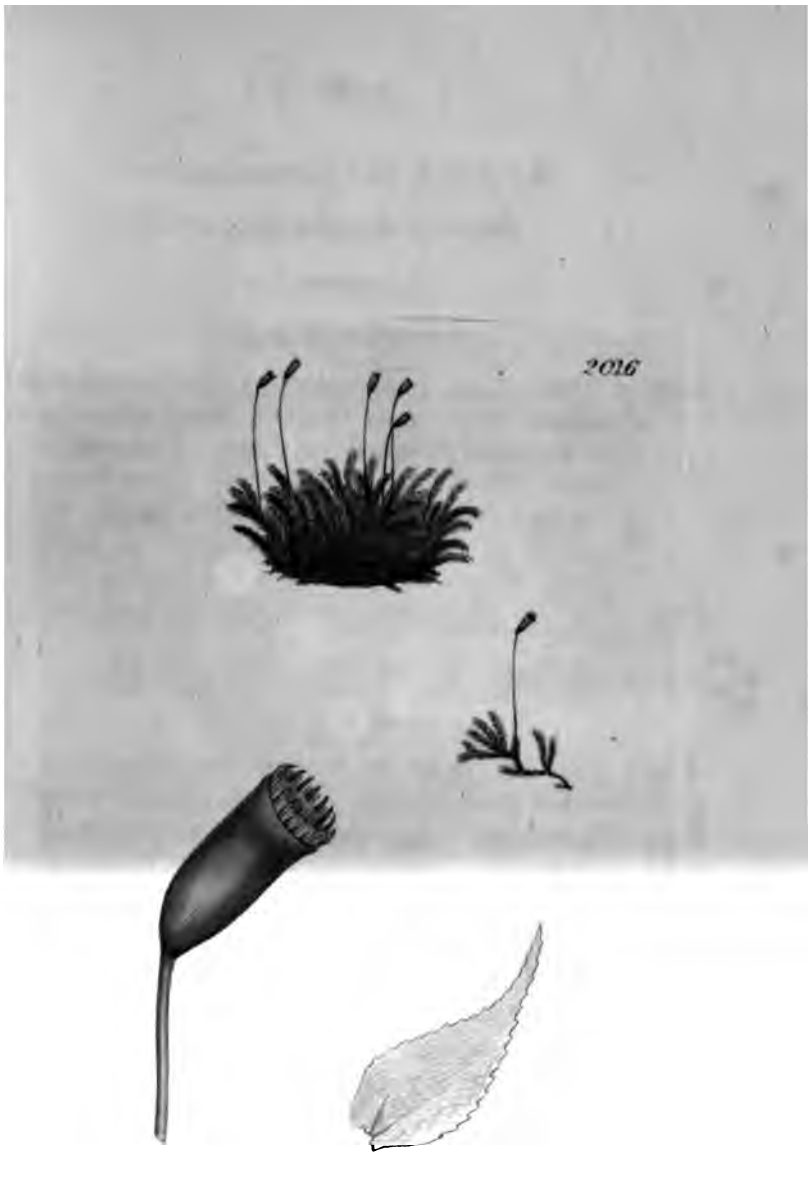
SPEC. CHAR. Stem creeping, pinnated. Leaves loosely spreading, ovate, serrated, pointed, flattish, with two plaits at the base; the upper ones curved. Capsule cylindrical, inclining. Lid conical, short.

SYN. Hypnum silesianum. *Web. and Mohr Fl. Germ.* 343.

Leskia Seligeri. *Brid. Musc.* v. 2. *p.* 2. 47.

THIS moss, new to our British Flora, and undescribed by all authors but those we have cited, was gathered on Ben Lyal in Sutherland by our often-mentioned friends Messrs. Hooker and Borrer in the summer of 1808. The fruit was then fully ripe and had dropped its lid.

It is a small creeping pinnai branched species, which we have hesitated whether to refer to the neighbourhood of cu-



May 1.1809 Published by J.Sowerby, London.

53

HYPNUM cordifolium.

Heart-leaved Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral sheath. *Outer fringe* of 16 teeth, dilated a base: *inner* a variously-toothed membrane. smooth.

SPEC. CHAR. Stem erect. Branches short. L spreading, heart-shaped, bluntish, single-ri rather remote. Lid hemispherical, pointed.

SYN. Hypnum cordifolium. *Hedw. Sp. Musc. Crypt.* v. 4. 97. *t.* 37. *Sm. Fl. Brit.* 1318. *Sw Musc. Suec.* 62. *Roth. Germ.* v. 3. 319.

THE above synonyms are all that can be found for this rare *Hypnum*, which was equally unknown to Dillenius, Linnæus, Haller and all other botanists till Dr. Swartz fou in Sweden, and the celebrated Hedwig in Germany. No of these eminent investigators ever saw the lid of the cap

2447

HYPNUM fluitans.

Floating Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem somewhat pinnate. Leaves lanceolate, pointed, loosely spreading, single-ribbed. Lid convex, with a small point.

SYN. Hypnum fluitans. *Linn. Fl. Suec. ed.* 2. 399. *Sm. Fl. Brit.* 1319. *Hedw. Sp. Musc.* 296. *Crypt. v.* 4. 94. *t.* 36. *With.* 851. *Hull.* 270. *Relh.* 432. *Sibth.* 298. *Abbot.* 245. *Dicks. H. Sicc. fasc.* 16. 22. *Turn. Musc. Hib.* 182.

H. erectum aut fluitans, foliis oblongis perangustis acutis. *Dill. Musc.* 299. *t.* 38. *f.* 33. *Raii Syn.* 82.

THIS we also received from Mr. Winch of Newcastle in

Mar. 1 1806 Published by J. Sowerby, London.

HYPNUM piliferum.

Hair-pointed Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: outer of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-stalk* from a scaly sheath.

SPEC. CHAR. Branches scattered. Leaves ovate, concave, entire, with a single rib reaching half way from the base, and tipped with a hair. Lid awl-shaped.

SYN. Hypnum piliferum. *Schreb. Lips.* 91. *Sm. Fl. Brit.* 1319. *Hedw. Sp. Musc.* 275. *Crypt. v.* 4. 35. *t.* 14. *Turn. Musc. Hib.* 178.

SENT by our obliging friend Mr. Winch from Northumberland in July last. We have it also from the Rev. H. Davies,

HYPNUM brevirostre.

Common Rough-stalked Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Branches straggling. Leaves ovate, pointed, slightly serrated, single-ribbed about half their length. Lid conical. Fruit-stalk granulated.

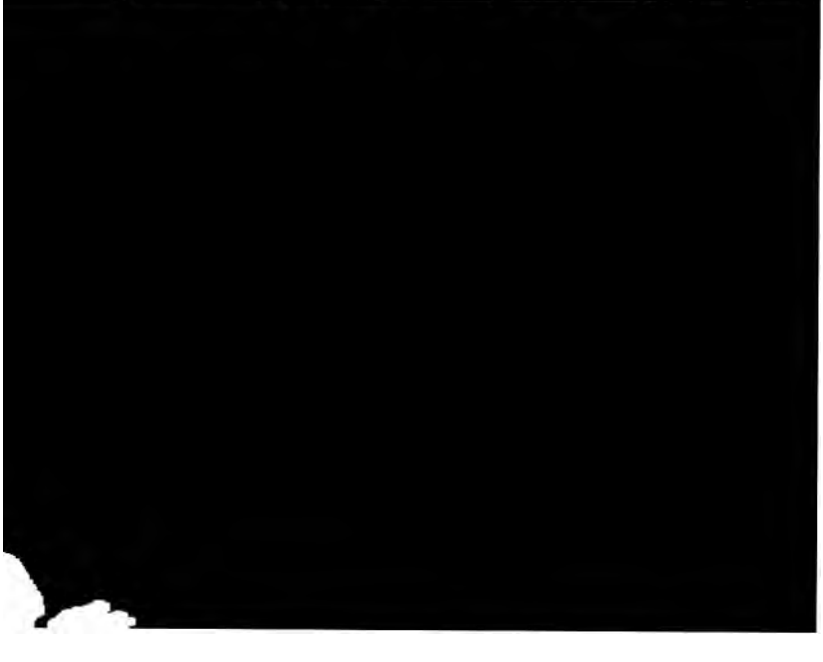
SYN. Hypnum brevirostrum. *Ehrh. Crypt.* 85.

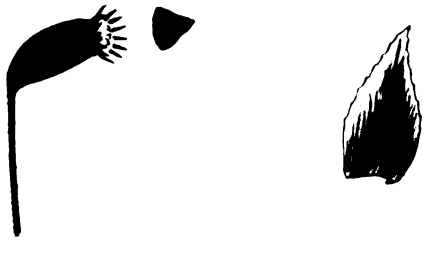
H. Rutabulum. *Linn. Sp. Pl.* 1590. *Sm. Fl. Brit.* 1320. *Hedw. Sp. Musc.* 276. *Crypt. v.* 4. 29. *t.* 12. *Huds.* 496. *With.* 851. *Hull.* 270. *Relh.* 432. *Sibth.* 297. *Abbot.* 245. *Turn. Musc. Hib.* 179.

H. dentatum vulgatissimum, operculis obtusis. *Dill. Musc.* 295. *t.* 38. *f.* 29.

H. repens, triangularibus minoribus foliis. *Raii Syn.* 80.

ONE of the most common of Mosses about trees, hedges, and bushy places, bearing fruit in the spring.





Sept.1.1816. Published by Ja.s Sowerby London

HYPNUM striatum.

Common Striated Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Branches straggling. Leaves triangular, somewhat ovate, pointed, minutely serrated, single-ribbed, striated. Lid awlshaped.

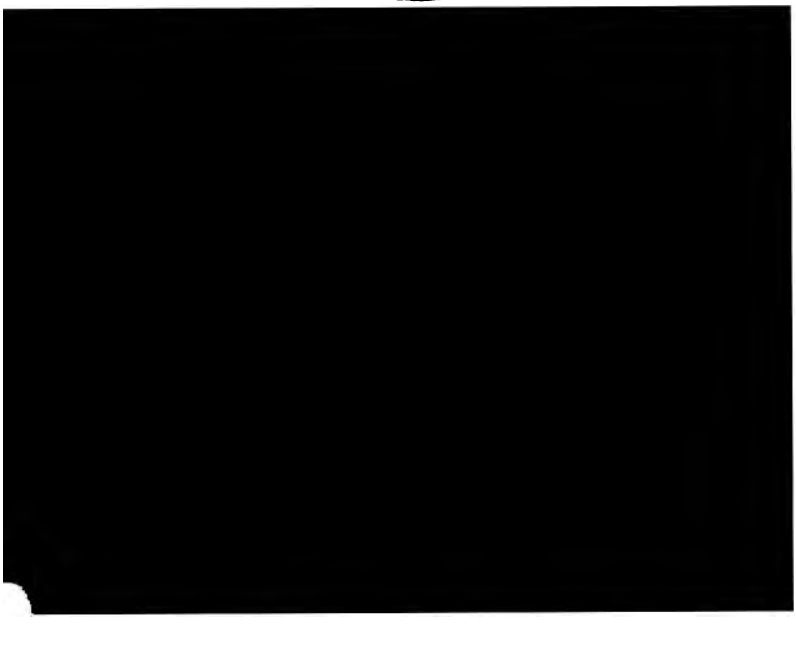
SYN. Hypnum striatum. *Schreb. Lips.* 91. *Sm. Fl. Brit.* 1321. *Hedw. Sp. Musc.* 275. *Crypt. v.* 4. 32. *t.* 13. *With.* 850. *Hull.* 270. *Sibth.* 415. *Turn. Musc. Hib.* 180.

H. longirostrum. *Ehrh. Crypt.* 75.

H. Rutabulum γ. *Huds.* 497. β. *Relh.* 433.

H. vulgare dentatum, operculis cuspidatis. *Dill. Musc.* 297. *t.* 38. *f.* 30.

H. repens, triangularibus minoribus foliis, pediculis et capitulis brevioribus et tumidioribus, minus. *Raii Syn.* 80.



Sept. 1.1820. Published by Jas. Sowerby, London.

HYPNUM stellatum.

Yellow Starry Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

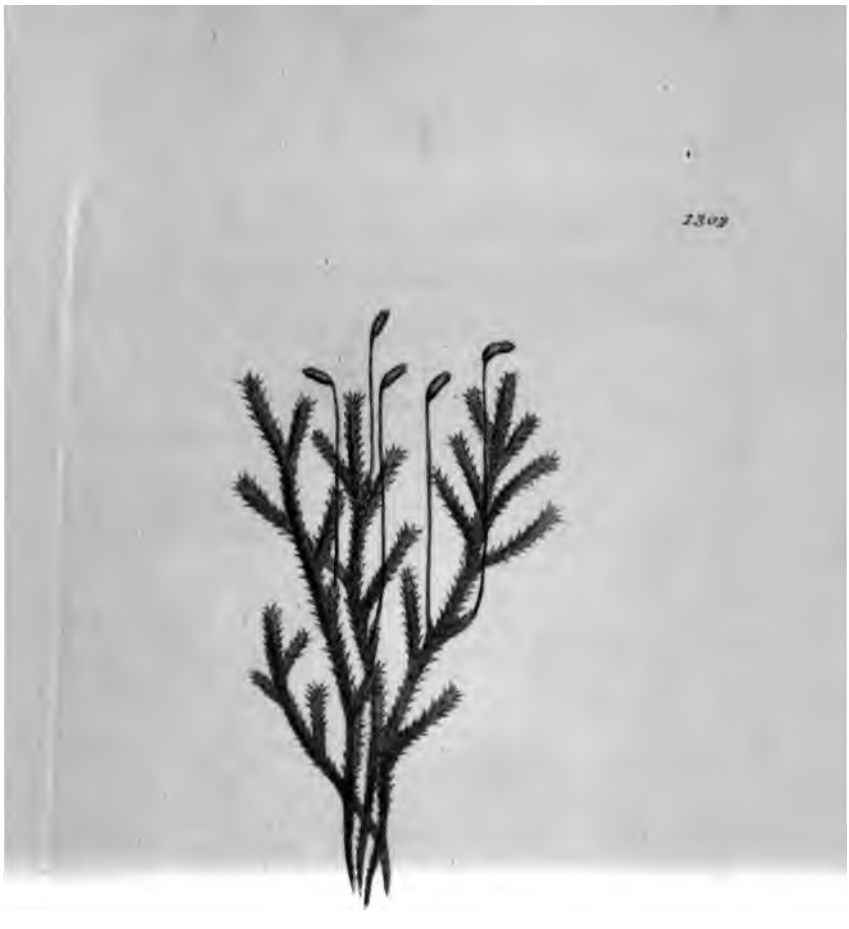
SPEC. CHAR. Stem erect, branched. Leaves ovate, pointed, entire, without nerves, very much spreading. Lid conical.

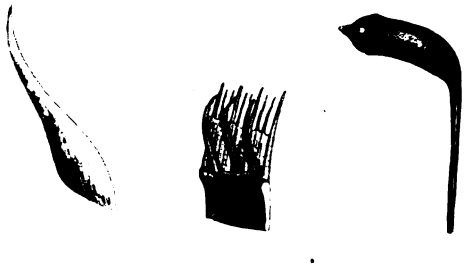
SYN. Hypnum stellatum. *Schreb. Lips.* 92. *Sm. Fl. Brit.* 1322. *Hedw. Sp. Musc.* 280. *Dicks. Crypt. fasc.* 1. 5. *t.* 1. *f.* 7. *H. Sicc. fasc.* 6. 23. *With.* 846. *Hull.* 268. *Relh.* 437. *Sibth.* 301. *Abbot.* 246.

H. comâ lutescente, extremitatibus stellatis. *Dill. Musc.* 302. *t.* 39. *f.* 35.

NOT uncommon in turfy bogs, but the fructification is not often to be found. The season for it is about March or April.

The stems grow erect, either in tufts or intermixed with other mosses, and are more or less branched, the branches





Pubᵈ by J.E. Sowerby, London.

HYPNUM squarrosum.

Drooping-leaved Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem branched, somewhat pinnated. Leaves ovate, pointed, keeled, recurved, without ribs. Lid conical.

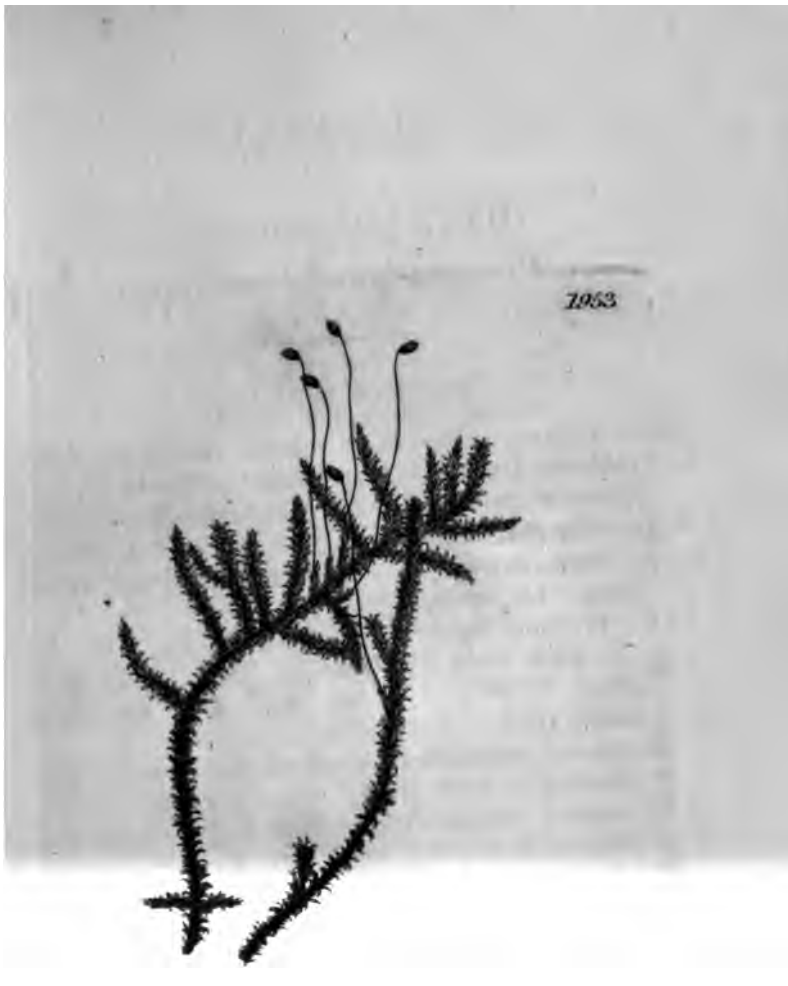
SYN. Hypnum squarrosum. *Linn. Sp. Pl.* 1593. *Sm. Fl. Brit.* 1323. *Hedw. Sp. Musc.* 281. *Huds.* 502. *With.* 857. *Hull.* 271. *Relh.* 435. *Sibth.* 299. *Abbot.* 249.

H. repens, triangularibus reflexis foliis, majus. *Dill. Musc.* 303. *t.* 39. *f.* 36. *Raii Syn.* 82.

β. H. repens, triangularibus reflexis foliis, minus. *Dill. Musc.* 304. *t.* 39. *f.* 39. *Raii Syn.* 82.

H. squarrosum. *Swartz. Musc. Suec.* 59. *Ekrh. Crypt.* 36.

COMMON in shady damp woods, and under hedges, pro-



Newton Published by Jas Sowerby London

HYPNUM squarrosulum.

Little Spreading-leaved Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, branched; the branches irregularly pinnated. Leaves awlshaped, entire, without a nerve, broad at the base, spreading widely and somewhat reflexed. Capsule drooping. Lid conical, short.

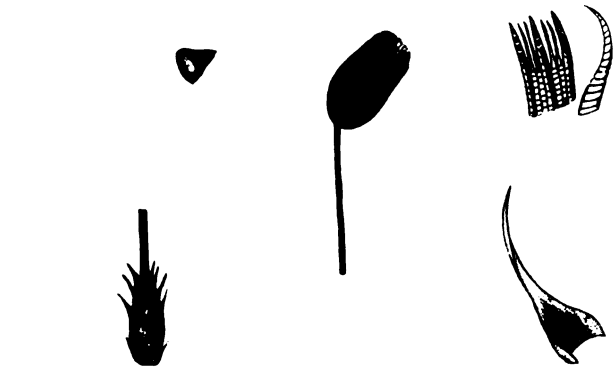
SYN. Hypnum squarrosulum. *Bridel. Musc. v.* 3. 149. *t.* 4. *f.* 2.

GATHERED in Mackershaw wood near Ripon by the late Mr. W. Brunton, and by no one else, to our knowledge, in Britain. It bears fruit in the early part of summer. The learned Bridel, who alone has published it, found it in Saxony and Switzerland.

The habit of the plant is somewhat like *H. serpens*, but it belongs to another section of the genus characterized by squarrose leaves, where it should stand near *H. squarrosum*. The stems are perennial, creeping, green, producing many pinnated slender leafy branches. Leaves of a bright or yellowish green, small, spreading in every direction, at right angles with the branches, or a little reflexed. They are entire, with a broad base, destitute of any nerve or plait, and taper into a very fine point. Sheaths of rather broader and shorter leaves, also without nerves. Fruitstalks an inch long, red, smooth. Capsule drooping, ovate, somewhat curved. Lid, which Bridel never saw, short and conical. Mr. Brunton communicated at the same time a much smaller variety, but differing in no other respect.

In the progress of a long work like this we might expect to have occasion from time to time to lament the loss of many veterans in science, but we have more frequently deplored the ravages of death among our more youthful associates. Mr. William Brunton of Ripon, whose favours we have often acknowledged, is now added to the melancholy catalogue. He was born Oct. 21, 1775, and died June 23, 1806, of a decline, which had long threatened his life. Early devoted to Botany and Chemistry in particular, he ardently pursued those studies to the last. Very strong natural parts, an excellent memory, acuteness and patience of investigation, formed his scientific character; his private one, as we are assured by an excellent friend, was no less estimable, and his relations have sustained an irreparable loss.

1709



February Published by Jas. Sowerby, London

HYPNUM loreum.

Rambling Mountain Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, somewhat pinnate. Leaves awlshaped, recurved, pointing towards one side, with a broad striated base. Lid convex, with a small point.

SYN. Hypnum loreum. *Linn. Sp. Pl.* 1593. *Sm. Fl. Brit.* 1324. *Hedw. Sp. Musc.* 294. *Huds.* 502. *With.* 857. *Hull.* 272. *Relh.* 436. *Sibth.* 297. *Dicks. H. Sicc. fasc.* 7. 21. *Turn. Musc. Hib.* 185.

H. loreum montanum, capsulis subrotundis. *Dill. Musc.* 305. *t.* 39. *f.* 40.

H. repens, surculis magis erectis, foliis reflexis longioribus cinctis, operculo capituli magno. *Raii Syn.* 82.

THIS *Hypnum* had not been noticed in Scotland till I found it in Binniston wood near Edinburgh in 1789, nor had

2672

HYPNUM triquetrum.

Great Triangular Feather-moss.

CRYPTOGAMIA Musci.

Gen. Char. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

Spec. Char. Stem ascending, somewhat pinnated. Leaves triangular, pointed, striated, spreading in every direction. Lid conical.

Syn. Hypnum triquetrum. *Linn. Sp. Pl.* 1589. *Sm. Fl. Brit.* 1325. *Hedw. Sp. Musc.* 256. *Huds.* 496. *With.* 550. *Hull.* 270. *Relh.* 433. *Sibth.* 296. *Light.* 246. *Dicks. H. Sicc. fasc.* 16. 21. *Turn. Musc. Hib.* 186.

H. vulgare triangulum, maximum et pallidum. *Dill. Musc.* 293. *t.* 38. *f.* 28.

H. repens, triangularibus majoribus et pallidioribus foliis. *Raii Syn.* 80.

VERY common in woods and on heaths, bearing fruit in the winter and early spring. It is readily known from all our other species by its great size.

1622

HYPNUM rugosum.

Yellow Wolf's-claw Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, somewhat pinnate. Leaves folded, keeled, falcate, twisted, furrowed, pointed, single-ribbed. Lid conical.

SYN. Hypnum rugosum. *Linn. Mant.* 131. *Sm. Fl. Brit.* 1325. *Dicks. Crypt. fasc.* 2. 12. *H. Sicc. fasc.* 1. 23. *With.* 856. *Hull.* 271. *Winch. v.* 1. 111. *Swartz. Musc. Suec.* 57.

H. lutescens crispum, Lycopodii facie. *Dill. Musc.* 289. *t.* 37. *f.* 24.

WATERY places about Loch Rannoch, Perthshire, a celebrated spot for botany, first afforded Mr. Dickson the present *Hypnum*, which Dillenius knew in Germany only, and for which Hedwig, Ehrhart, and many of less note, have mistaken a different moss, whose leaves are transversely corrugated, not known in Britain. Mr. Winch has favoured us with the true *rugosum*, from Prestwick Car in Northumberland.

The stems are procumbent, imperfectly pinnate, leafy, the branches upright, obtuse, slightly hooked. Leaves of a yellow or tawny green, rusty or black with age, closely imbricated, strongly curved to one side, and in some degree twisted. They are lanceolate, entire, with a long taper point, compressed, keeled, single-ribbed throughout, furrowed lengthwise, when dry, but not across. Sheaths close, of shorter broader leaves. Fruitstalk two inches long, erect, dark purple. Capsule inclining, a little curved, cylindrical, ovate at the base, dilated at the mouth. Lid conical, short, acute.

Pubd 1 Jan 1811 by Jas Sowerby London

HYPNUM ſcorpioides.

Scorpion Hypnum.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Fringe* double: *outer* of 16 tapering teeth: *inner* a toothed membrane. *Flowers* lateral. *Fruit-ſtalk* from a ſcaly ſheath.

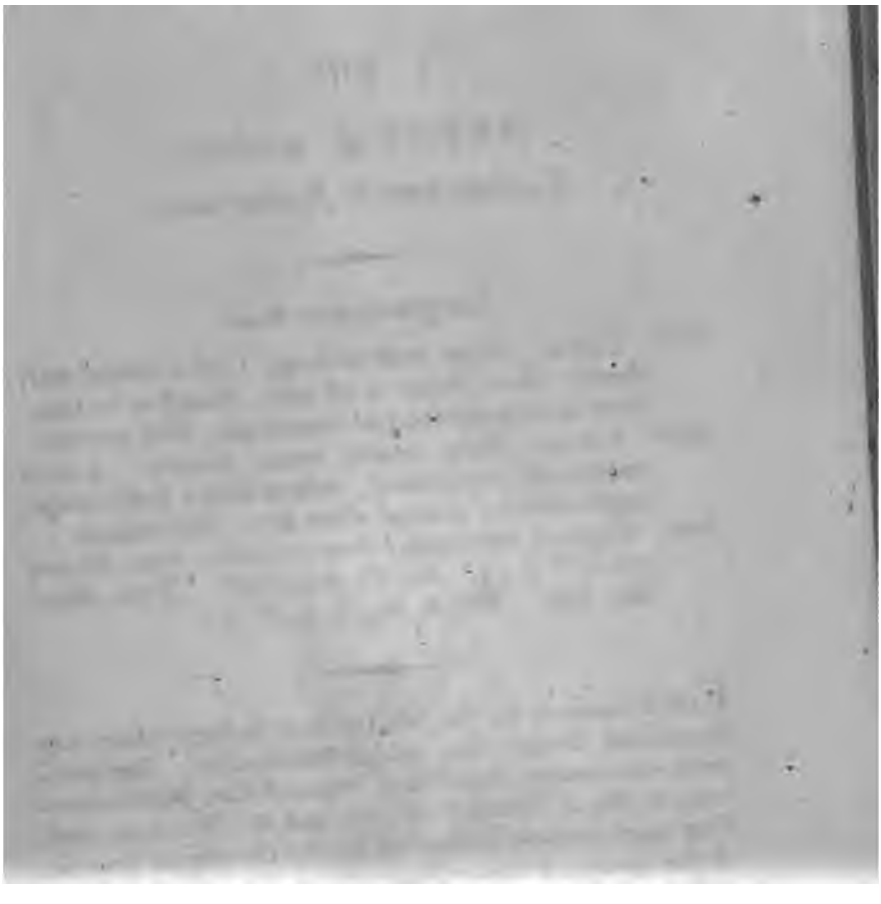
SPEC. CHAR. Stem procumbent. Branches ſcattered, ſwelling upwards. Leaves ovate, acute, concave, curved all one way, without a midrib. Capſules drooping. Lid conical.

SYN. Hypnum ſcorpioides. *Linn. Sp. Pl.* 1592. *Hudſ.* 501. *With.* 856. *Hull.* 271. *Relh.* 412. *Abbot.* 249. *Dickſ. H. Sicc. faſc.* 3. 22. *Hedw. Sp. Muſc.* 295.

H. ſcorpioides paluſtre magnum, Lycopodii inſtar ſparſum. *Dill. Muſc.* 290. *t.* 37. *f.* 25.

COMMUNICATED from Cambridgeſhire by the Rev. Mr. Hemſted. It grows on turfy bogs, and is ſaid to be more frequent in the mountainous or northern counties than with us. Mr. Pitchford and the Rev. Mr. Bryant found it long ago on Felthorpe bogs 5 or 6 miles north of Norwich, where many

1039.



HYPNUM revolvens.

Curling-leaved Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem nearly erect, pinnate. Leaves awlshaped, compressed, twisted into a sickle-shape, single-ribbed; striated when dry. Lid conical.

SYN. Hypnum revolvens. *Swartz. Musc. Suec.* 58 *and* 101. *t.* 7. *f.* 14. *Sm. Fl. Brit.* 1327. *Turn. Musc. Hib.* 188. *Winch. Guide. v.* 1. 111.

FIRST observed by the late Dr. Scott in boggy places near Swanlinbar, Ireland, but without fructification. Our specimens were communicated from Prestwick Car, Northumberland, by Mr. J. Thornhill in 1804, and Mr. Winch in 1806. They agree precisely with others sent by the original describer of this species, Professor Swartz.

The plant before us has something of the habit of *H. scorpioides*, *t.* 1039, not so well expressed in that plate as we could have wished, the specimens not having acquired their rich tawny colour. This is much smaller, more erect, and of a still darker hue, almost black, except the young branches, whose leaves are pale green, soon becoming tawny. The branches are short, alternate, and spreading. Leaves rather shining, closely imbricated, curved to one side, lanceolate or ovate, with an awlshaped acute termination, compressed, keeled, much curved and twisted, single-ribbed; when dry striated. Sheath pale brown, slender, close. Fruit-stalk above 2 inches high, red, wavy. Capsule cylindrical, curved, drooping, of a rusty hue, becoming slightly but irregularly furrowed by drying. Lid conical, short, with a little point.

The compressed carinated leaves, and dark colour, distinguish this from *H. uncinatum*, which is moreover a smaller plant.

2073

HYPNUM uncinatum.

Procumbent Hooked Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, pinnated. Leaves tapering, sickle-shaped, single-ribbed, striated. Lid conical. Capsule constricted.

SYN. Hypnum uncinatum. *Hedw. Sp. Musc.* 289. *Crypt. v.* 4. 65. *t.* 25. *Sm. Fl. Brit.* 1328. *Dicks. Crypt. fasc.* 4. 19. *Turn. Musc. Hib.* 190.

THIS grows in watery stony places in the north, and appears to be not unfrequent, particularly in Yorkshire. Mr. William Brunton communicated it from Moss Dale Head, Wensley Dale, in that county. It bears capsules in August and September.

The stems are procumbent and pinnated, forming loose, perennial, matted tufts. Leaves of a pale shining green, often verging towards yellow, closely imbricated, but leaning all to one side, and often so remarkably curved as each to form a complete circle; they are lanceolate with a long point, compressed, single-ribbed, striated and entire; the uppermost are rolled together into a sort of hook. Fruitstalks red, above an inch long. Sheath of many long slender pale leaves. Capsule drooping, curved, smooth, cylindrical, mostly contracted under the mouth, which is much dilated. Lid conical, short, acute. We exhibit in the plate a morsel of the inner fringe highly magnified, to show its curious structure, which indeed is common to many of the genus. Hedwig represents the intermediate teeth in pairs.

Myrs del. Published by Jas Sowerby London

HYPNUM palustre.
Creeping Marsh Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

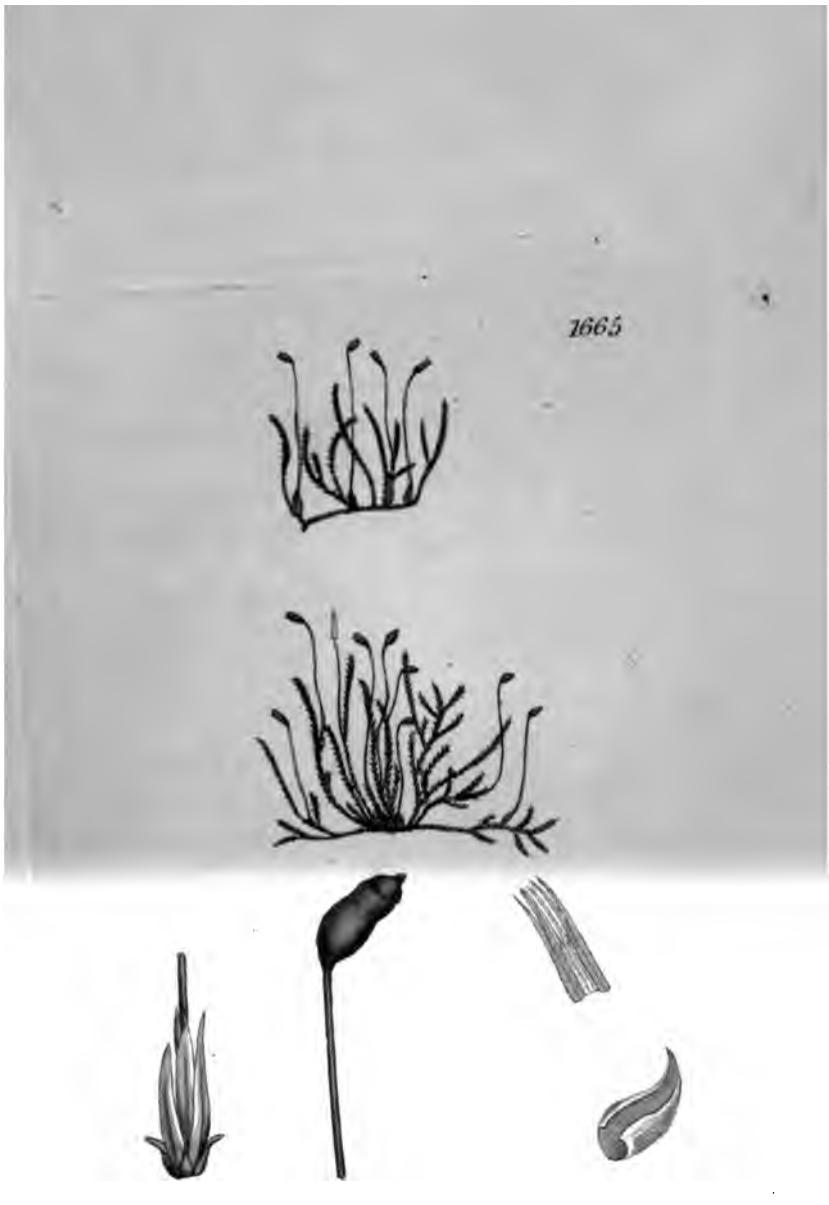
SPEC. CHAR. Stem creeping. Branches erect. Leaves lanceolate, concave, nerveless, curved to one side, some of them spreading. Capsule drooping. Lid conical.

SYN. Hypnum palustre. *Linn. Sp. Pl.* 1593. *Sm. Fl. Brit.* 1329. *Huds.* 502. *With.* 857. *Hull.* 272. *Turn. Musc. Hib.* 191.

H. luridum. *Hedw. Sp. Musc.* 291. *Crypt. v.* 4. 99. *t.* 38. *Dicks. Crypt. fasc.* 4. 18.

H. heterophyllum aquaticum polycephalum repens. *Dill. Musc.* 293. *t.* 37. *f.* 27, A, *not* B. *Herb. Dill.*

FOUND in marshy or watery places, generally growing on stones, or rotten wood, and bearing fruit in June and July. Our specimens were gathered near Arundel by Mr. Turner



Nov. 1806. Publish'd by Jn.° Sowerby, London.

[1305]

HYTNUM flavicaule.

Creeping River Feather-moss.

CRYPTOGAMIA Musci.

Gen. Char. Capsa ovato-oblonga, teres a latere
sicula. Calyx Perigo et Pe- nedi, dilated
base: flavers a, vaginiformi-tubulosi membranaceo.
smooth.

Spec. Char. Stem creeping. Branches elon-
flaccid. Leaves ovate, concave, acuminate-
curved. Veil glabrous.

Syn. Hypnum flaccidum. Swartz. Meth. Muse. 62.
Fl. Brit. 1230. Hedw. Sp. Musc. 277. t. 71. f. 2.
H. lucidum. Linnæi. Muse. Suec. 58.

FOR this new genus, a new acquisition to the British Flo-
we are obliged to Mr. Turner, who is about to describe it
his work on Irish Mosses. It grows upon stones in rivers
and was discovered in Ireland by Dr. Smith.

HYPNUM fluviatile.

Creeping River Feather-moss.

CRYPTOGAMIA Musci.

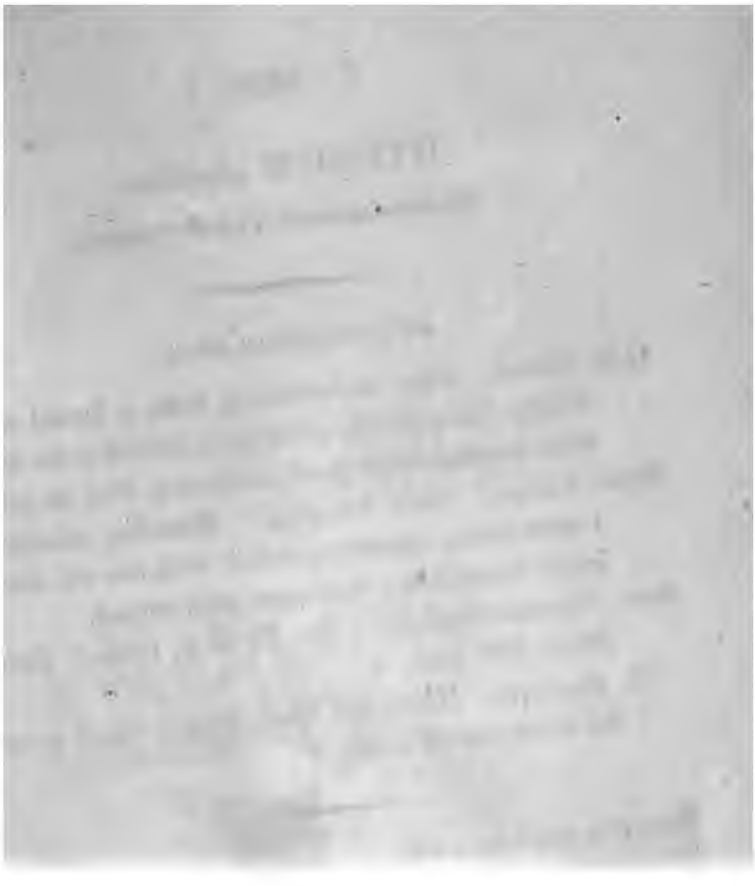
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches elongated, flaccid. Leaves ovate, concave, single-ribbed, curved. Lid convex.

SYN. Hypnum fluviatile. *Swartz. Musc. Suec.* 63. *Sm. Fl. Brit.* 1330. *Hedw. Sp. Musc.* 277. *t.* 71. *f.* 4.
H. luridum. *Swartz. Musc. Suec.* 58.

FOR this rare moss, a new acquisition to the British Flora, we are obliged to Mr. Turner, who is about to describe it in his work on Irish Mosses. It grows upon stones in rivers, and was discovered in Ireland by Dr. Scott and Mr. R. Browne. Specimens from Dr. Swartz himself have determined it to be his *H. fluviatile* as well as his *luridum*; but the *luridum* of Hedwig is the *palustre* of Linnæus, an erect species, whose leaves have no midrib.

1803



69.

HYPNUM alpinum.

Alpine-torrent Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem creeping. Branches clustered. Leaves ovate, concave, pointed, with one rib reaching to the middle; the upper ones curved.

SYN. Hypnum alpinum. *Sm. Fl. Brit.* 1330. *Turn. Musc. Hib.* 192.

H. flagellare. *Hedw. Sp. Musc.* 282. *t.* 73. *f.* 1—3; the synonyms all wrong.

SENT by Mr. Winch from the north of England. Mr. Turner had previously observed it on rocks in the alpine regions of Snowdon, washed by the torrent of Llyn Fynnon Lâs, and had also received it from Ireland. Mr. Dickson found it in the alpine rivulets of Scotland, intermixed with his real

HYPNUM cupressiforme.

Cypress-branched Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base [illegible] a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem prostrate, pinnated. Leaves lance-ovate-awlshaped, concave, ribless, curved to one side. Lid beaked.

SYN. Hypnum cupressiforme. *Linn. Sp. Pl.* 1592. *Sm. Fl. Brit.* 1331. *Hedw. Sp. Musc.* 291. *Crypt.* v. 4. 59. *t.* 23. *Huds.* 500. *With.* 858. *Hull.* 272. *Relh.* 435. *Sibth.* 298. *Abbot.* 248. *Dicks. H. Sicc. fasc.* 8. 21. *Turn. Musc. Hib.* 193.

H. crispum cupressiforme, foliis aduncis. *Dill. Musc.* 287. *t.* 37. *f.* 23.

H. repens crispum cupressiforme. *Raii Syn.* 89.

VERY common about the roots of trees and on rocks and stones in dry woods, where it forms broad elastic patches, easily separable from what they grow upon, and bearing capsules abundantly in April and May.

Mar 1 1808. Published by Jas Sowerby London.

HYPNUM dubium.

Fine Curve-leaved Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base; *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem prostrate, pinnate. Leaves ovate, pointed, single-ribbed, curved towards one side; the uppermost sickle-shaped. Lid conical.

SYN. Hypnum dubium. *Necker. Musc.* 161. *Sm. Fl. Brit.* 1332. *Dichs. Crypt. fasc.* 3. 10. *H. Sicc. fasc.* 13. 23. *With.* 854. *Hull.* 271. *Turn. Musc. Hib.* 195. *Hoffm. Germ. v.* 2. 71. *Bridel. Musc. v.* 3. 64.

H. filicinum β. *Huds.* 498.

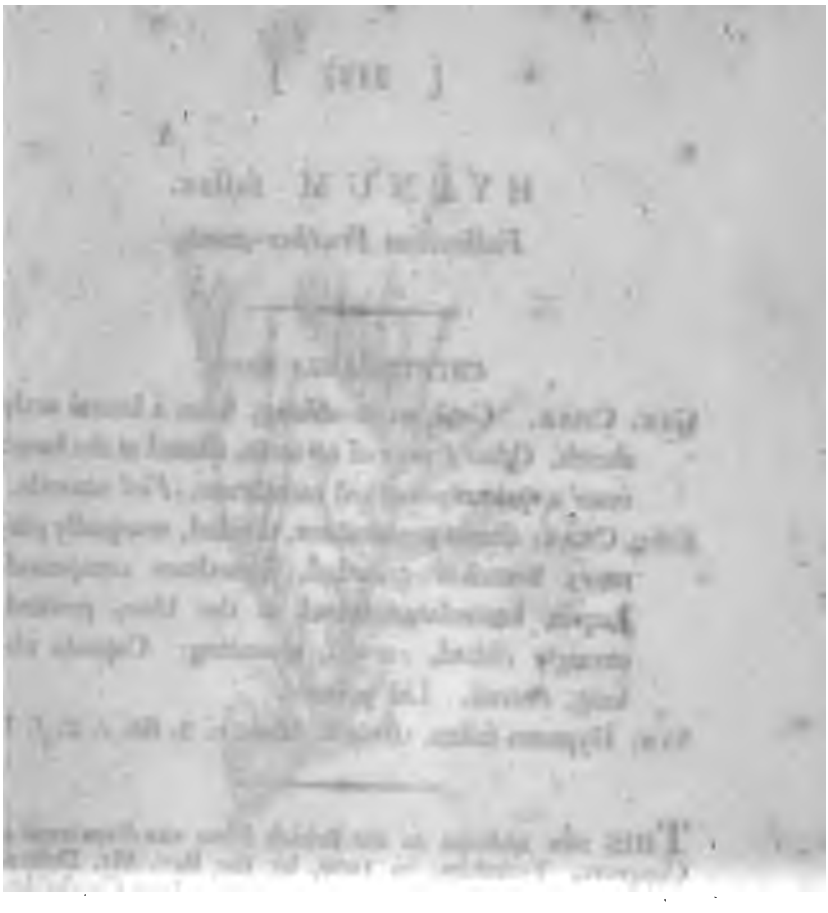
H. repens filicinum trichodes palustre. *Dill. Musc.* 286. *t.* 36. *f.* 21. *Raii Syn.* 85. *n.* 31 & *n.* 28.

Leskea incurvata. *Hedw. Sp. Musc.* 216. *t.* 53. *f.* 8—14.

OUR figure is drawn from a specimen in Mr. Turner's collection, gathered by the late Dr. Scott in a rivulet at Luttrell's town, Ireland.

The stems are 2 or 3 inches long, prostrate, leafy, irregularly pinnated, with short, curved branches. Leaves of a dull yellowish green, ovate, pointed, entire in their lower part, finely serrated upward, with a strong rib; those on the stem broad, closely imbricated; those on the branches more or less falcate, curved to one side, and longer-pointed; all of them frequently furnished with a fold or furrow on each side of the rib. Fruitstalks an inch and half long, wavy, purple. Sheath of several pale, ovate, striated, acute leaves, justly observed by Mr. Turner to be finely toothed, at least near the point. Capsule ovate inclining to cylindrical, brown, smooth, drooping, finally curved; a little contracted below the mouth. Lid, according to Hedwig and Dillenius, conical and short.

Marrion. published by J.d Sowerby London



72.

HYPNUM fallax.

Fallacious Feather-moss.

CRYPTOGAMIA Musci.

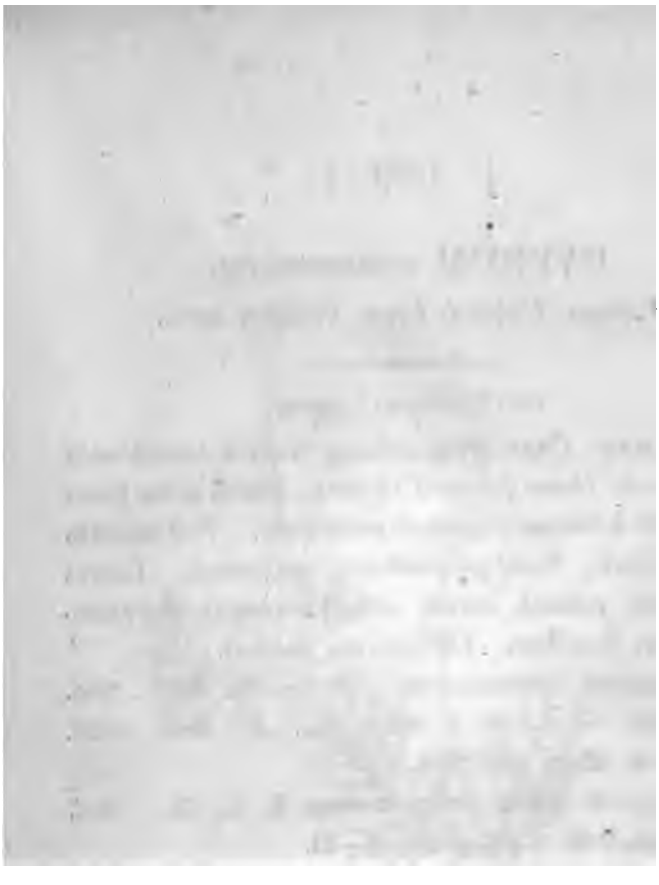
GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stems procumbent, divided, unequally pinnate; branches crowded, sometimes compound. Leaves lanceolate, broad at the base, pointed, strongly ribbed, curved, spreading. Capsule oblong, curved. Lid pointed.

SYN. Hypnum fallax. *Bridel. Musc. v.* 3. 66. *t.* 2. *f.* 1.

THIS new addition to the British *Flora* was discovered at Copgrove, Yorkshire, in 1806, by the Rev. Mr. Dalton. Mr. Turner had received it the preceding year from Cambridge, but it was sent accidentally, as a package for other things.—It grows in bogs.

The stems are 3 or 4 inches long, procumbent, divided,



HYPNUM commutatum.

Larger Curled Fern Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

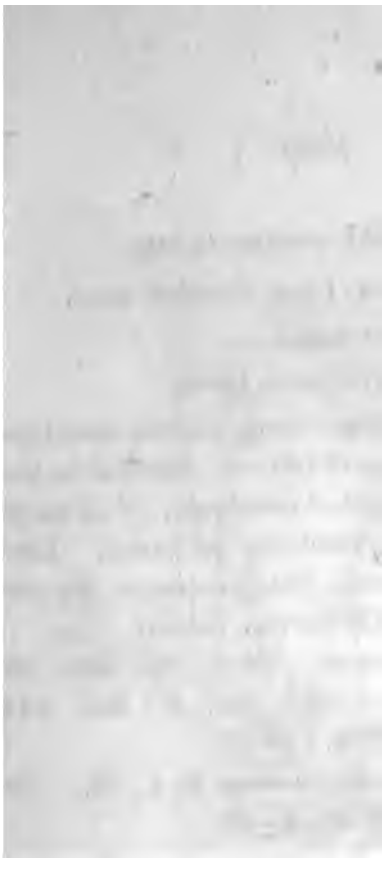
SPEC. CHAR. Stem procumbent, pectinated. Leaves ovate, pointed, curled, ribbed almost to the extremity, beardless. Lid convex, pointed.

SYN. Hypnum commutatum. *Hedw. Sp. Musc.* 284. *Crypt. v.* 4. 68. *t.* 26. *Sm. Fl. Brit.* 1333. *Turn. Musc. Hib.* 196.

H. repentis filicini crispi varietas B, C, D. *Dill. Musc.* 283. *t.* 36. *f.* 19, B—D.

THIS elegant moss grows in watery and marshy places on a calcareous soil. At Hackfall in Yorkshire, from whence the Rev. Mr. Dalton communicated our specimens, it is plentiful, and frequently bears fruit in April and May.

The stems are perennial, from 4 to 8 inches or more in length, simple or divided, rusty, the ascending branches pinnated with a number of short hooked ones, all densely clothed with leaves, which are small, of a rich somewhat tawny green, not shining, curved towards one side, and always, whether wet or dry, curled and crisped. They are ovate, entire, long-pointed, beardless, furnished with a rib which disappears before it reaches the point, and marked with a few short ribs or plaits at their base. Sheath pale; its inner leaves long and striated. Fruitstalk an inch and half long, of a fine crimson and yellow. Capsule arcuate and drooping, nearly cylindrical, with a spreading mouth. Lid convex, scarcely conical, with a short straight point.



74.

HYPNUM filicinum.

Lesser Golden Fern Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, imperfectly pectinated. Leaves ovate, pointed, bearded, ribbed, curved to one side. Lid convex, pointed.

SYN. Hypnum filicinum. *Linn. Sp. Pl.* 1590. *Sm. Fl. Brit.* 1334. *Hedw. Sp. Musc.* 285. *t.* 76. *f.* 5—10. *Crypt. v.* 4. *t.* 26. *f.* A, B. *Huds.* 498. *With.* 854. *Hull.* 271. *Relh.* 433. *Sibth.* 294. *Abbot.* 247. *Turn. Musc. Hib.* 197.

H. repens filicinum crispum. *Dill. Musc.* 282. *t.* 36. *f.* 19, A, E, F. *Raii Syn.* 85.

EVEN Dillenius confounded this with the preceding, from which it differs in being rather smaller, less accurately pectinated, of a more golden or tawny hue, and its branches more densely clothed with rusty down. More precise differences are found on minute examination. The leaves of *H. filicinum* are furnished with a rib even to their points, and tipped with a minute hair. They are falcate, or curved to one side, in a wet as well as dry state, but in the latter only are they also curled or crisped. The fruitstalks are nearly two inches long, and proceed from the main stem. Capsule cylindrical, curved and drooping. Lid convex, with a small point.

This species is not rare in watery mountainous places, bearing fruit, though not universally, in April or May.

1670

75.

HYPNUM molluscum.

Plumy Crested Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, pectinated. Leaves ovate-awlshaped, curved, without ribs. Capsule ovate, drooping. Lid conical.

SYN. Hypnum molluscum. *Hedw. Sp. Musc.* 269. *Crypt. v.* 4. 56. *t.* 22. *Sm. Fl. Brit.* 1335. *Turn. Musc. Hibern.* 198.

H. Crista-castrensis. *Huds.* 498. *With.* 854. *Hull.* 271. *Relh.* 434. *Sibth.* 295. *Abbot.* 247. *Dicks. H. Sicc. fasc.* 11. 20.

H. filicinum, cristam castrensem repræsentans. *Dill. Musc.* 284. *t.* 36. *f.* 20, A.

Muscus filicifolius luteus, folio crasso et undulato. *Raii Syn.* 86, sub *n.* 32.

1570

HYPNUM Crista-castrensis.

Ostrich-plume Feather-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, from a lateral scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* a variously-toothed membrane. *Veil* smooth.

SPEC. CHAR. Stem procumbent, closely pectinated. Leaves lanceolate, curved, nearly entire, plaited, without ribs. Capsule oblong, drooping. Lid conical, short.

SYN. Hypnum Crista-castrensis. *Linn. Sp. Pl.* 1591. *Hedw. Sp. Musc.* 287. *t.* 76. *f.* 1—4. *Ehrh. Crypt.* 6.
H. n. 1768. *Hall. Hist. v.* 3. 34.

THE first British specimens we ever saw of this fine moss were gathered by Mr. G. Don, several years ago, but since the publication of *Fl. Brit.*, in woods in Scotland. That in our plate was sent from a wood at the head of Hawes-water, Cumberland, by the Rev. Mr. Dalton to Mr. Turner, in 1809. We have been obliged to draw the fruit from one of Mr. Davall's beautiful Swiss specimens.

We find by the Linnæan herbarium that Hedwig was right in the above name; see *H. molluscum*, *t.* 1327, which English botanists had mistaken for *Crista-castrensis*. We have supposed Dillenius's *t.* 36. *f.* 20, B, might be the latter, but it may not be so, and therefore we decline a positive reference to that figure.

The present is a much larger and handsomer plant than the *molluscum*, more accurately and closely pectinated, and elegantly curved, truly like an ostrich plume. The leaves are narrower and longer in proportion, scarcely serrated except at their points, destitute of a rib, but plaited, and very strongly curved. Fruit-stalks an inch and half high, or more, red. Capsule elongated and almost cylindrical, drooping and curved. Lid considerably shorter than in *molluscum*, quite straight, without any elongated point.

July 1 1804 Published By Jas Sowerby, London.

77.

[1902]

HOOKERIA lucens.

Shining Hookeria.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate, reticulated and dotted, from a lateral scaly sheath. *Outer fringe* of 16 teeth: *inner* membranous, with 16 teeth. *Veil* reticulated, cellular, undivided.

SPEC. CHAR. Leaves in three rows, elliptical, uniform, entire, without ribs.

SYN. Hookeria lucens. *Sm. MSS. apud Soc. Linn.*

Hypnum lucens. *Linn. Sp. Pl.* 1589. *Sm. Fl. Brit.* 1295. *Hedw. Fund. v.* 1. 13. *t.* 1. *f.* 4—6. *Sp. Musc.* 243. *Huds.* 495. *With.* 845. *Hull.* 268. *Lightf.* 743. *Turn. Musc. Hib.* 155. *Dicks. H. Sicc. fasc.* 2. 22.

H. pennatum aquaticum lucens, longis latisque foliis. *Dill. Musc.* 270. *t.* 34. *f.* 10.

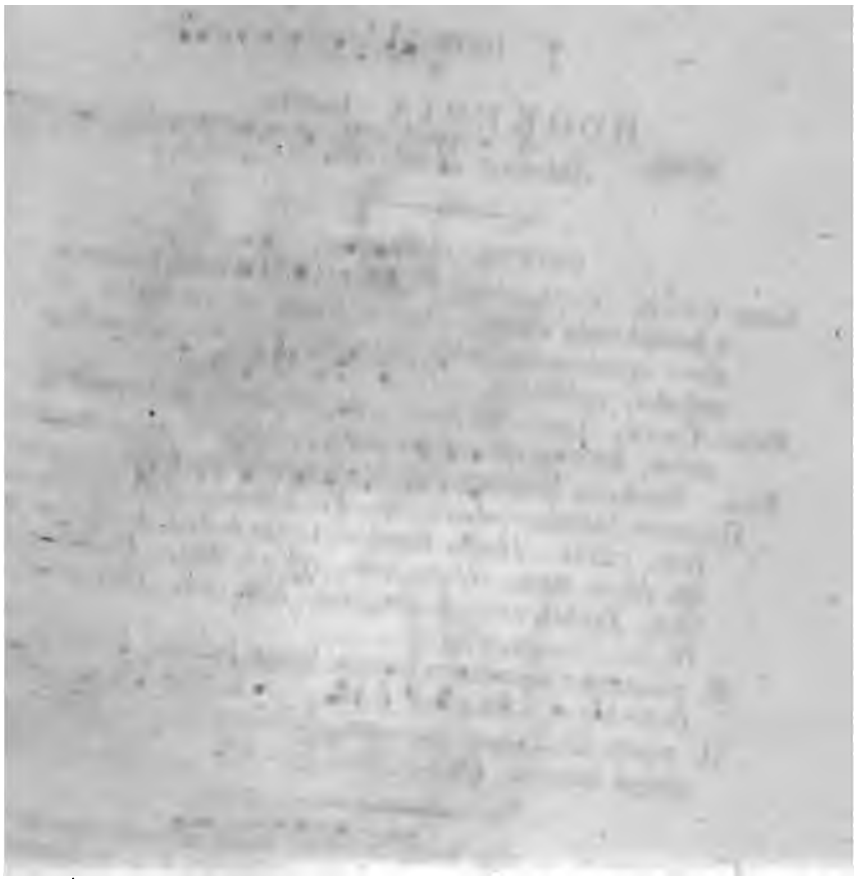
H. repens filicifolium ramosum, foliolis majoribus magisque crebris. *Dill. in Raii Syn.* 88.

GATHERED on Holt heath, Norfolk, laden with capsules, in February 1808, by Mr. W. Jackson Hooker, F.L.S. the discoverer of *Buxbaumia aphylla*, to whom I am happy to dedicate this new genus; more especially as the reticulated habit, for which it is conspicuous, so nearly agrees with the *Jungermanniæ*, a tribe concerning which Mr. Hooker is preparing a very elaborate and scientific work.

I have long ago hinted, *Fl. Brit.* 1295, that this moss might constitute a new genus, since which the observations of M. Labillardiere prove *Anictangium bulbosum* of Hedwig to belong to the same, and I am indebted to Mr. Menzies for 6 more species, all agreeing in their reticulated capsules, which I find the most essential generic mark, and more or less closely in habit and the other characters above given.

Hookeria lucens grows in wet shady places, most frequently in the northern counties. The stems form tufts among grass, creeping, partly ascending. Leaves generally in 3 ranks, vertical, spreading in 2 rows, elliptical, entire, pale, pellucid, juicy, most beautifully reticulated, but without rib or veins. Sheaths solitary or in pairs, of ovate, pointed leaves. Stalks red. Capsule somewhat drooping, ovate, brown, shining, all over reticulated, as well as its conical lid, the margin of which is fringed with a chain-like ring. Veil conical, tight, crenate, whitish, all over reticulated, and very

Jan. 1 1811 published by J. Sowerby London



78.

FONTINALIS antipyretica.

Greater Water-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* with a lid and veil, sessile, enclosed in an imbricated calyx.

SPEC. CHAR. Leaves pointed, folded so as to form a keel, disposed in three ranks. Fructification lateral.

SYN. Fontinalis antipyretica. *Linn. Sp. Pl.* 1571. *Huds. Fl. An.* 467. *With. Bot. Arr. v.* 3.75. *Relh. Cant.* 395. *Sibth. Ox.* 293.

F. major, foliis triangularibus complicatis, capitulis in foliorum alis sessilibus. *Raii Syn.* 79.

F. triangularis major complicata, e foliorum alis capsulifera. *Dill. Musc.* 254. *t.* 33. *f.* 1.

NOT uncommon in slow deep waters, growing upon rocks, posts, &c. floating with the stream considerably below the surface, and very rarely producing any fructification.

The root is small, but strong, and perennial. Stem slender, tough and wiry, much branched, from 3 or 4 inches to a foot long, clothed with numerous leaves, which are imbricated generally in three rows, of an ovate sharp-pointed form, but compressed so as to become acutely carinated, entire in the margin, their colour a deep transparent green. Capsules lateral, solitary, on very short scaly flower-stalks, elliptical, entirely invested with imbricated scales, and their orifice ciliated with about 16 red taper teeth. The lid is conical, and the veil of the same form, but rather longer.

Linnæus informs us, in his Flora Suecica, that the Swedes "stuff in this moss between their chimneys and wooden walls, to guard the latter from fire:" a passage which English writers have greatly misapprehended; for, without supposing any thing very incombustible in its nature, it may answer the purpose above described merely by preventing the passage of air.

79.

[1861].

FONTINALIS squamosa.

Shining Scaly Water-moss.

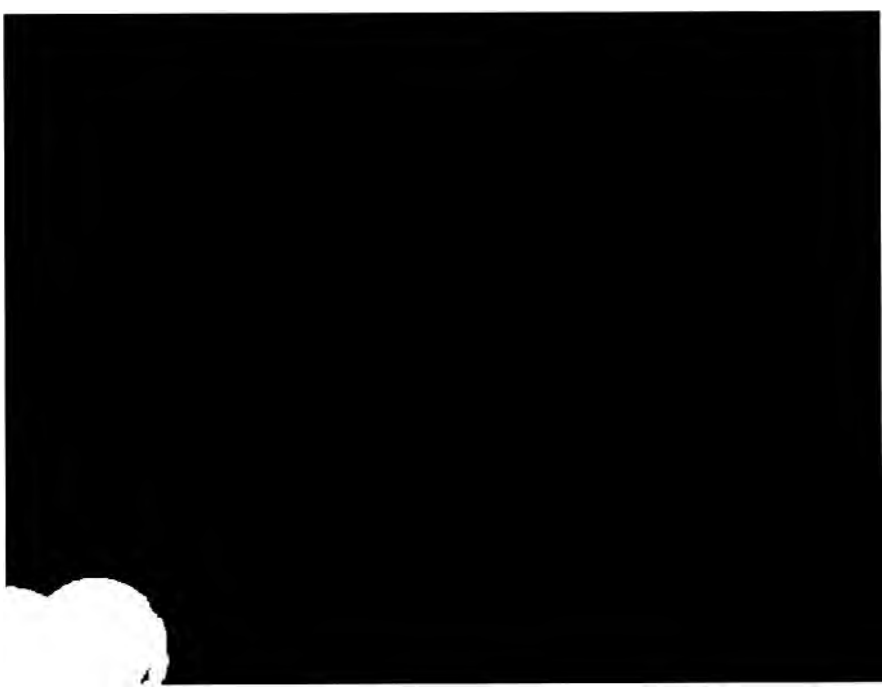
CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong, lateral, enclosed in a scaly sheath. *Outer fringe* of 16 teeth, dilated at the base: *inner* reticulated.

SPEC. CHAR. Leaves imbricated, lanceolate, pointed, concave. Scales of the sheath blunt, as well as the lid.

SYN. Fontinalis squamosa. *Linn. Sp. Pl.* 1571. *Sm. Fl. Brit.* 1336. *Hedw. Sp. Musc.* 299. *Crypt. v.* 3. 32. *t.* 12. *Huds.* 467. *With.* 788. *Hull.* 275. *Lightf.* 696. *Dicks. H. Sicc. fasc.* 5. 25. *Turn. Musc. Hib.* 199.

F. squamosa tenuis sericea atro-virens. *Dill. Musc.* 258. *t.* 33. *f.* 3.



Mar.1.1863. Published by Jas. Sowerby, London.

Mar 1 1863 Published by Jas Sowerby, London.

2432

81.

BRYUM hygrometricum.

Yellow twisting Bryum.

CRYPTOGAMIA Musci.

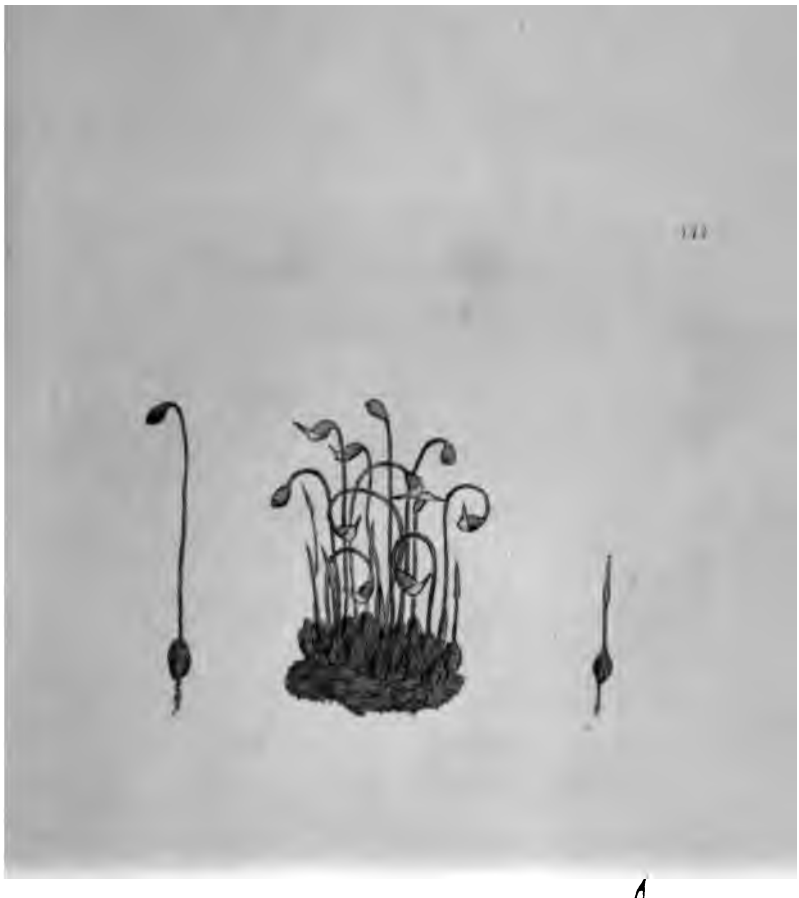
GEN. CHAR. *Caps.* with a lid. *Veil* smooth. *Flower-stalk* from a terminal tubercle.

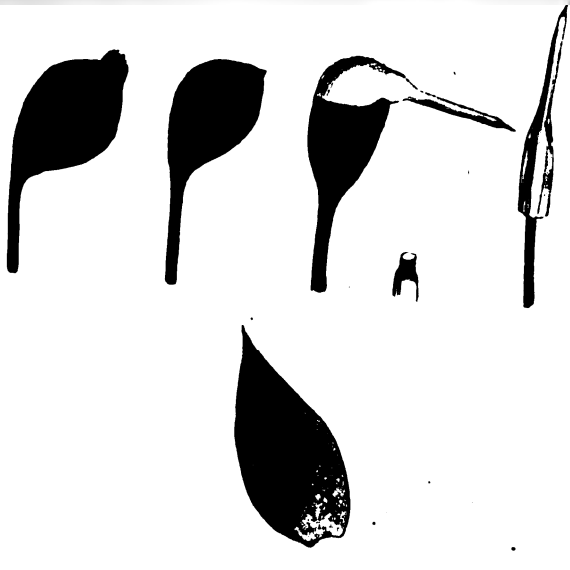
SPEC. CHAR. Stem none. Capsule drooping, pear-shaped. Veil oblique, angular, with a slender beak. Leaves ovate, collected together at their points.

SYN. Bryum hygrometricum. *Huds. Fl. An.* 488.
Mnium hygrometricum. *Linn. Sp. Pl.* 1575. *With. Bot. Arr. v.* 3. 86. *Relh. Cant.* 399.
Funaria hygrometrica. *Sibth. Ox.* 288.
Bryum aureum, capitulis reflexis piriformibus, calyptra quadrangulari, foliis in bulbi formam congestis. *Raii Syn.* 101.
B. bulbiforme aureum, calyptra quadrangulari, capsulis piriformibus nutantibus. *Dill. Musc.* 407. *t.* 52. *f.* 75.

EXTREMELY common on moist garden walks and neglected flower-pots, waste ground, heaths, &c. producing its capsules in the spring and early part of summer abundantly.

Roots long, simple, downy. Stem none, or very short, bearing a few broad, ovate, entire, acute, pellucid leaves, so





FUNARIA Muhlenbergii.

Hair-pointed Cord-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* obovate. *Outer fringe* of 16 oblique teeth, cohering at their tips: *inner* of 16 flat teeth. *Flowers* terminal. *Veil* beaked.

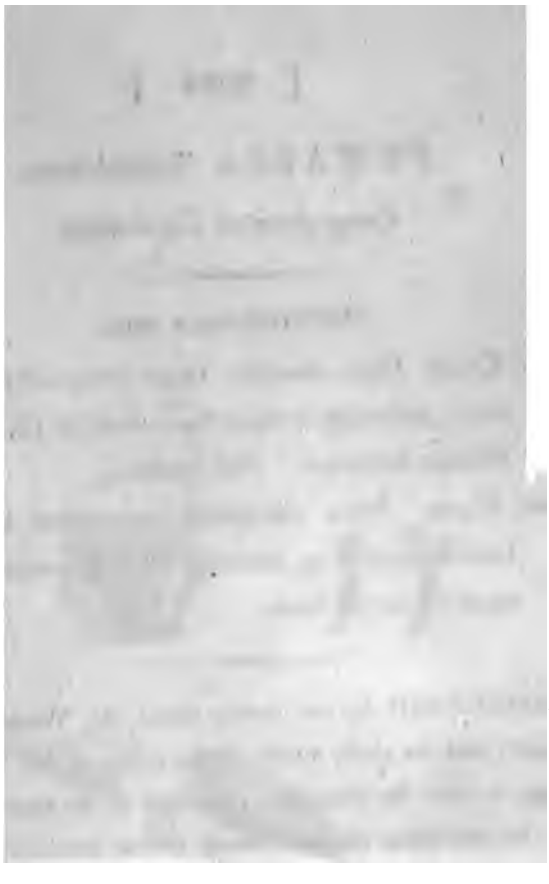
SPEC. CHAR. Leaves concave, finely serrated, hair-pointed. Capsule oblique. Veil cylindrical. Lid slightly conical.

SYN. Funaria Muhlenbergii. *Turn. in Annals of Botany, v.* 2. 198.

FOR this new and highly interesting addition to the Flora of Britain we are obliged to the Rev. Mr. Dalton of Copgrove, who found it in that neighbourhood. It was first discovered near Lancaster in Pennsylvania by the Rev. Dr. Muhlenberg, and is mentioned by Mr. Turner in his work on Irish Mosses, *p.* 106, as well as in Dr. Sims, and Mr. Konig's *Annals of Botany*. It makes only the third species hitherto known of the very distinct and natural genus to which it belongs, one of which species is common in Europe, and is figured in our 5th volume, *t.* 342, and the remaining one, from Hispaniola, is in the Linnæan herbarium.

The plants of the present species grow in a scattered manner, and at first sight greatly resemble the *Gymnostomum pyriforme*, *t.* 413, but are of a darker green. The stem is short and simple. Root brown, long, probably annual. Leaves scarcely at all spreading, concave, ovate, finely serrated, acute, with a strong rib terminating in a hair-like point; their substance more reticulated than in *F. hygrometrica*. Stalk terminal, not an inch long, of a fine red, somewhat curved. Capsule nearly upright, pear-shaped, oblique, smooth, green. Lid of a short conical form, red at the edge. Outer fringe red; inner pale green. Veil bent obliquely, inflated at the base, its beak cylindrical, not quadrangular.

Published by J. Sowerby, London



83.

FUNARIA Templetoni.

Long-fruited Cord-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* obovate. *Outer fringe* of 16 oblique teeth, cohering at their tips: *inner* of 16 flat teeth. *Flowers* terminal. *Veil* beaked.

SPEC. CHAR. Stem elongated, somewhat branched. Leaves spreading, ovate, entire. Capsule obovate, tapering at the base.

DISCOVERED by our worthy friend Mr. Templeton near Belfast; and we gladly accede to the wishes of Mr. Turner, in calling it after the discoverer, especially as we have sought in vain for any thing similar, among several nondescript exotic *Funariæ* now in our possession.

This species differs widely from the only two of its genus already described as British, see *t.* 342 and 1497, in its caulescent habit, and scarcely oblique fruit, the form of which is far more slender than in those, with an elongated tapering base. The proliferous and occasionally branched stem shows this moss to be perennial. The leaves differ from *F. hygrometrica* in being expanded and nearly flat; from *F. Muhlenbergii* moreover in being entire, and, though pointed, destitute of a hair-like termination.—The fringe is quickly deciduous and very tender, nor have we had an opportunity of examining it critically. The veil is sufficiently like the rest of the genus, though not, as in the original species, quadrangular.

Macaria published by J. & J. Sowerby, London.

84.

BARTRAMIA Halleriana.

Lateral Bartramia.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſule* ſpherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

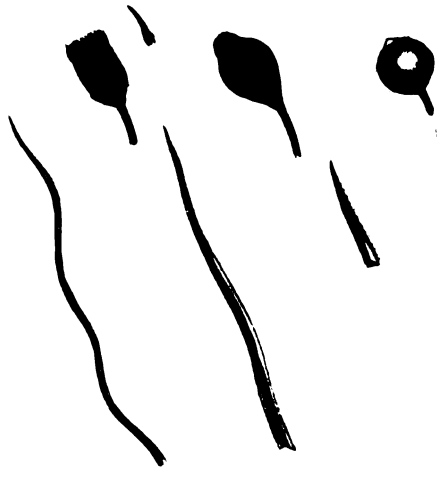
SPEC. CHAR. Fruit-ſtalks lateral, curved, ſhorter than the leaves. Leaves linear-awlſhaped, without lateral nerves.

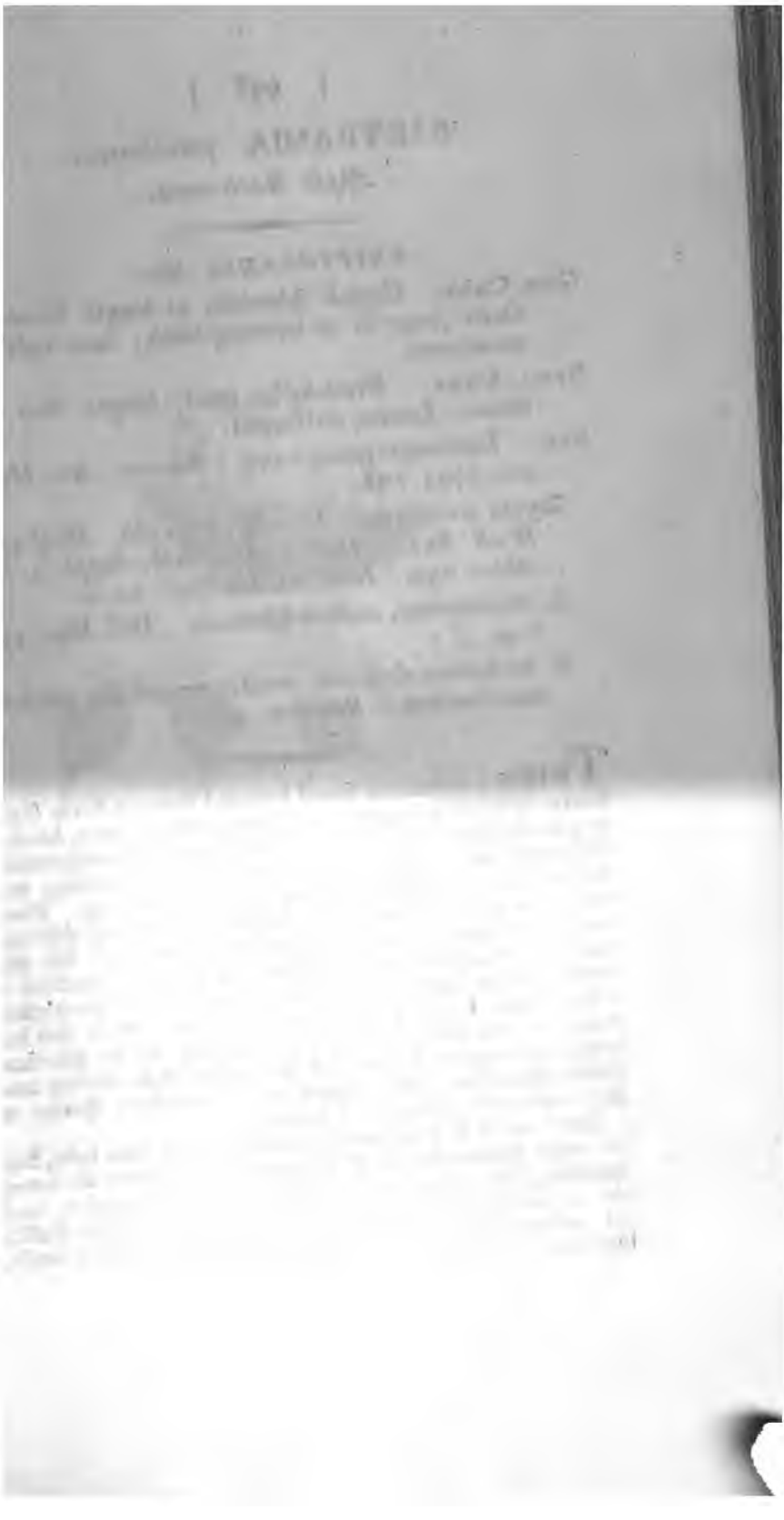
SYN. Bartramia Halleriana. *Hedw. Crypt. v.* 2. 111. *t.* 40. *Swartz. Act. Holm. ann.* 1795. 268.

Bryum laterale. *Hudſ.* 483. *Lightf.* 727. *With.* 823. *Hull.* 254. *Dickſ. H. Sicc. faſc.* 5. 20.

FOUND in the moiſt ſtony parts of mountainous woods in Scotland, Wales, and the north of England, but not commonly. Mr. Griffith ſent our ſpecimens from Wales in July 1800, at which ſeaſon the ſeeds are for the moſt part ripe.

This moſs forms broad patches of denſe, upright, branched ſtems, near two inches high, and entirely clothed from top to bottom with leaves, which are a little more inclined to one ſide than the other. The lower part of the ſtems is alſo clothed with denſe brown woolly radicles. The leaves ſuddenly taper from a broad baſe into a linear-awlſhaped ſlender figure, ſer-





BARTRAMIA pomiformis.

Apple Bartramia.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſule* ſpherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-ſtalks erect, longer than the ſtems. Leaves awlſhaped.

SYN. Bartramia pomiformis. *Swartz. Act. Holm. ann.* 1795. 268.

Bryum pomiforme. *Linn. Sp. Pl.* 1580. *Hudſ.* 474. *With.* 822. *Hull.* 259. *Relh. Suppl.* 3. 10. *Abbot.* 240. *Dickſ. H. Sicc. faſc.* 10. 20.

B. capillaceum, capſulis ſphæricis. *Dill. Muſc.* 339. *t.* 44. *f.* 1.

B. trichoides vireſcens, erectis majuſculis capitulis maliformibus. *Raii Syn.* 97.

THIS elegant moſs is found here and there on ſandy ſhady banks, or in black boggy mould in the clefts of rocks, bearing its green round fruit about April, which in the following month diſcharges the ſeeds, becoming brown, more oblong, and marked with 16 parallel furrows as in the preceding. There

March 1 1801. Published by Jas Sowerby London.

BARTRAMIA crispa.

Frizzled Bartramia.

CRYPTOGAMIA Musci.

Gen. Char. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

Spec. Char. Fruit-stalks erect, longer than the stems. Leaves setaceous, broad at the base, curled when dry. Capsule somewhat oblique. Lid obtusely conical.

Syn. Bartramia crispa. *Swartz. Musc. Suec.* 73. *Turn. in Ann. of Bot.* v. 1. 527.

Our specimens of this moss were sent by Mr. Winch from Northumberland. It is a very recent acquisition to the British Flora, having been discovered by that gentleman in Healyfield, and, in company with Mr. Richard Waugh, in Alendale and Chewist in that county. Mr. Turner, in the valuable periodical publication of Dr. Sims and Mr. Konig above quoted, has fully described it, and clearly established it as a distinct species from the more common *B. pomiformis*, figured in v. 14. t. 998.

The stems form tufts, vary in height from half an inch to 2 or 3 inches, and are but little branched. Leaves pale green, dilated at their base, then suddenly contracted into a tapering or awl-shaped form, narrower than those of *B. pomiformis*, serrated, and furnished with a strong rib. When dry they become much curled and contorted. Fruit-stalks rising above the stems, not an inch long, tawny or yellow, shining. Capsules oblique, at first globose, then somewhat oblong and furrowed. Lid obtusely conical, rather more prominent than in the above-named species. Outer fringe bright red.

1526

Curtis's Mag. Published by W. Curtis, London

87.

BARTRAMIA ithyphylla.

Straight-leaved Bartramia.

CRYPTOGAMIA Musci.

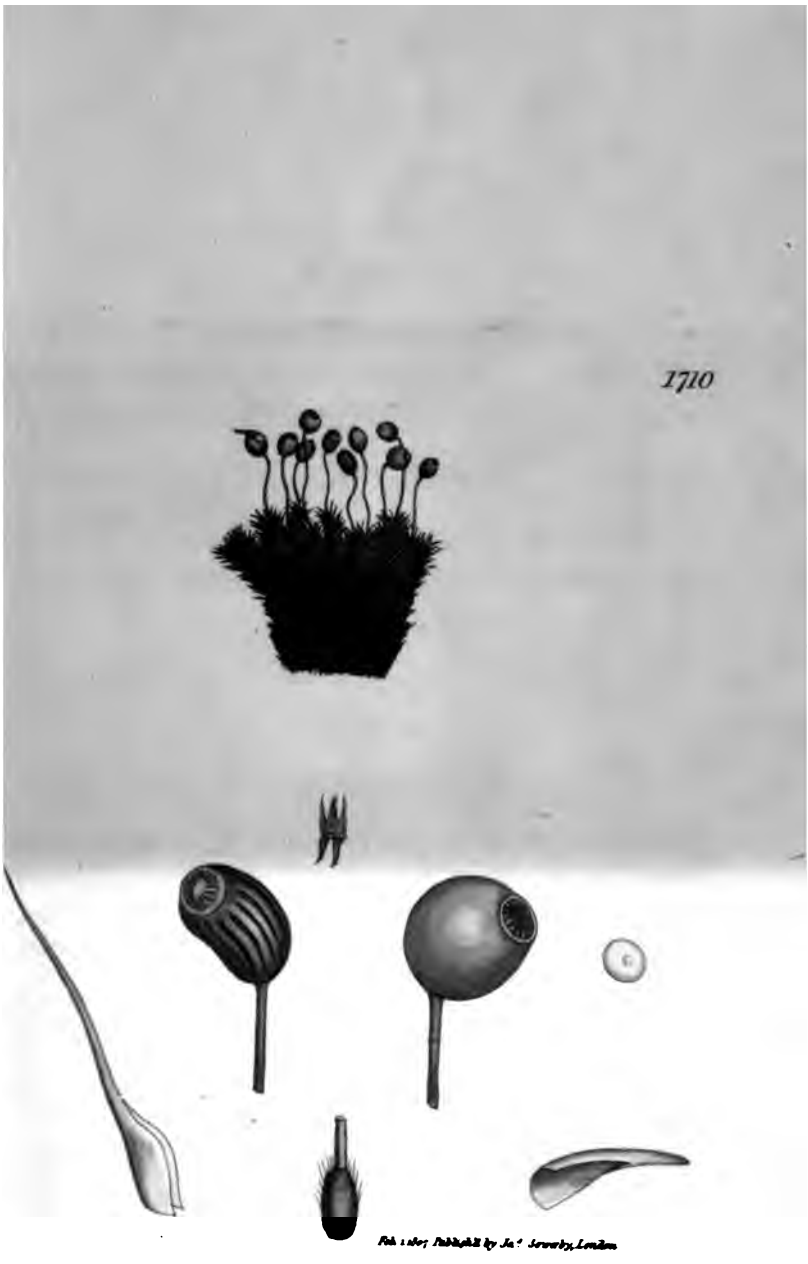
GEN. CHAR. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-stalks erect, longer than the stems. Leaves capillary, with a very broad base, entire, very straight when dry.

SYN. Bartramia ithyphylla. *Bridel. Musc. v.* 4. 132. *t.* 1. *f.* 6. *Turn. and Dillw. Bot. Guide*, 730. *Winch. Bot. Guide*, 113.

MR. SOWERBY informs me that this moss was first found in Great Britain by his 2d son Mr. George Sowerby, in May 1803, at Llyn-vach, near Pont-nedd-vechan, in South Wales, since which it has been sent him by the Rev. Mr. Dalton from Yorkshire, and Mr. Winch from Northumberland. It is probably, as Bridel observes, not uncommon in Europe, having been easily overlooked for *B. pomiformis*, *v.* 14. *t.* 998, and according to him, taken for the latter even by the excellent Professor Swartz.

It differs from the species just mentioned in having longer, narrower, quite capillary, and almost perfectly entire leaves, (though very much dilated at the base,) which in every state of the plant, whether dry or wet, always remain perfectly straight, and this is known by experience to be a good specific difference. The capsules grow on long, terminal, upright, though not quite straight, fruitstalks, and are larger than those of *B. pomiformis*. When ripe they are deeply and regularly marked with 16 furrows.



Pub.ished Published by Jas. Sowerby, London

88.

BARTRAMIA gracilis.

Tall Slender Bartramia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-stalks erect, taller than the stems. Leaves lanceolate, revolute, single-ribbed, serrated towards the point. Stems elongated.

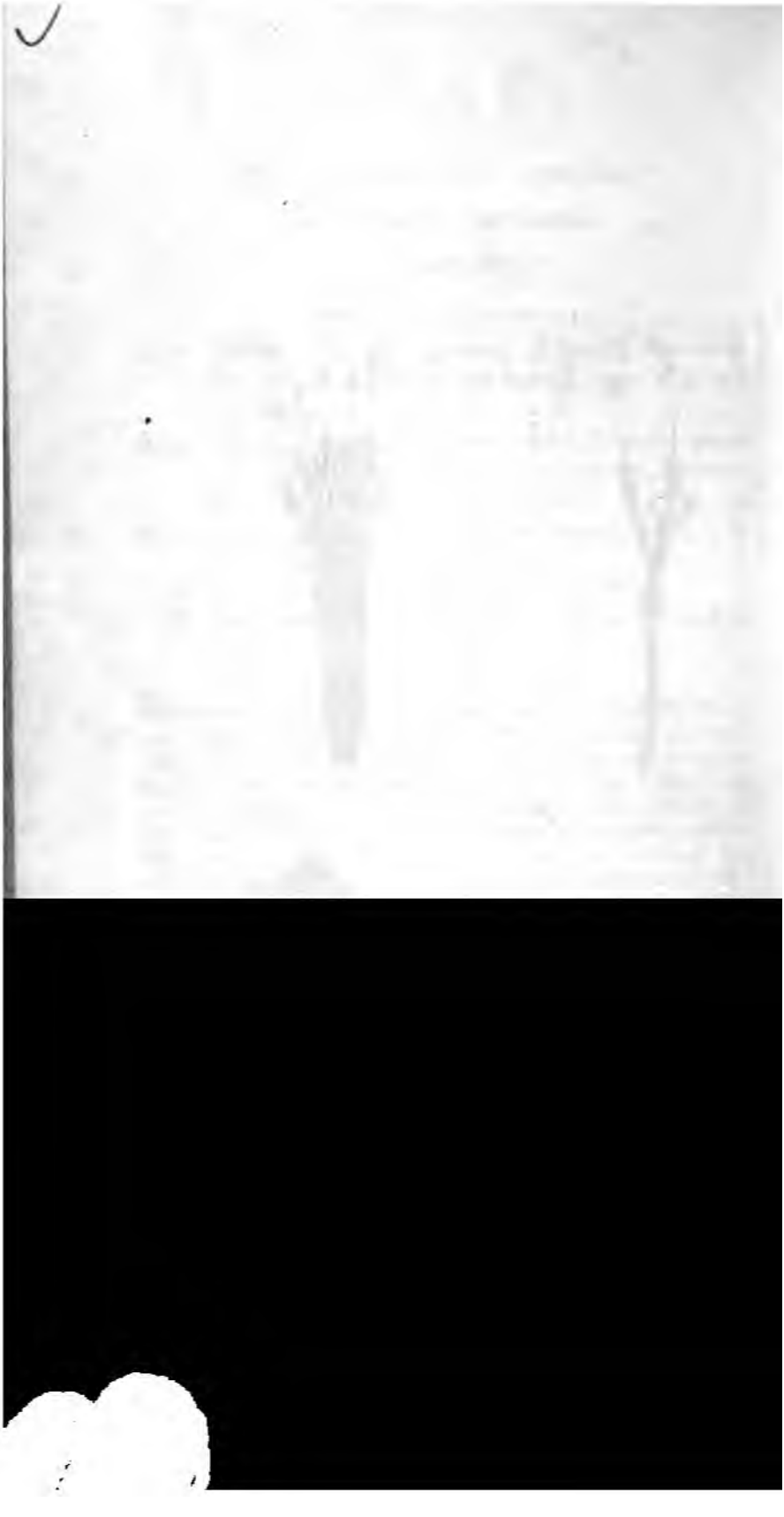
SYN. Bartramia gracilis. *Flörk in Schrad. Journ. v. 2. 171. Sm. Fl. Brit.* 1341.
B. Oederiana. *Swartz MSS.—Mohr. Ind. 5.*
Bryum Oederi. *Retz. Prod.* 261. *Fl. Dan. t.* 478.

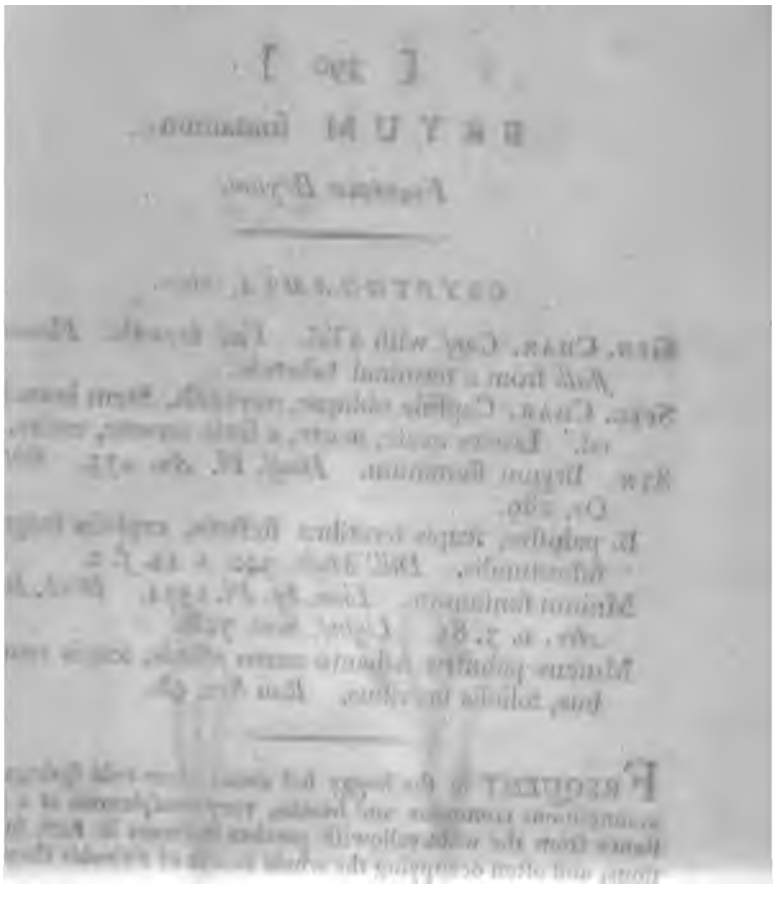
IN the year 1788 I received from my worthy friend Mr. Dickson a Scottish specimen of this moss, as a probably new species, which agreeing with original ones from the authors above quoted, caused me to admit it into the *Fl. Brit.*; with mention of Ireland also as its native country on the authority of Dr. Scott and Mr. Turner. But while my final sheet was under correction, my correspondent last-named informed me, with his usual candour, of his having made a mistake, and I therefore, *p.* 1407, struck out this species as foreign to our *Flora*, at that moment not adverting to Mr. Dickson's specimen. It remains however on his original authority, now confirmed by Mr. G. Don, who finds it on the summits of some of the highland mountains, bearing ripe fruit in August, and to whom we are obliged for this specimen.

The stems are much taller than those of *B. pomiformis*, *t.* 998, as well as more slender, compact, and usually less branched. The leaves are very different, being more broadly lanceolate, revolute; when dry recurved and twisted; serrated towards the point. Their colour is darker than in that plant. Fruit-stalks red. Capsules smaller, and more evidently curved towards one side when ripe.

Mr. Turner's Irish specimen, which led to the above error, is figured in his *Musc. Hib. t.* 10. *f.* 1, as a probable variety of *B. fontana*, with which it seems to us not well to accord, and we should rather assent to his suggestion of its being a new species.

Dec 1.1827. Published by Ja.s Sowerby London.





BRYUM fontanum.

Fountain Bryum.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſ.* with a lid. *Veil* ſmooth. *Flower-ſtalk* from a terminal tubercle.

SPEC. CHAR. Capſule oblique, roundiſh. Stem branched. Leaves ovate, acute, a little remote, entire.

SYN. Bryum fontanum. *Hudſ. Fl. An.* 475. *Sibth. Ox.* 289.

B. paluſtre, ſcapis teretibus ſtellatis, capſulis magnis ſubrotundis. *Dill. Muſc.* 340. *t.* 44. *f.* 2.

Mnium fontanum. *Linn. Sp. Pl.* 1574. *With. Bot. Arr. v.* 3. 85. *Lightf. Scot.* 708.

Muſcus paluſtris Adianto aureo affinis, ſcapis tenuibus, foliolis brevibus. *Raii Syn.* 98.

FREQUENT in the boggy ſoil about clear cold ſprings on mountainous commons and heaths, very conſpicuous at a diſtance from the wide yellowiſh patches it forms in ſuch ſituations, and often occupying the whole courſe of a rivulet through a ſmall alpine meadow.

Roots perennial, tufted, brown, ſtems erect, thickly cluſtered together, leafy, ſlender, generally once divided into 3 or more branches from one centre, with now and then a ſtraggling branch beſides, ſo that we could ſcarcely have believed Linnæus had intended the ſame moſs, were not his own Lapland ſpecimens now before us. The leaves are ſmall, ovate, ſharp-pointed, but little ſpreading, frequently ſo thinly ſet that the red ſtem appears between them. Male flowers in large terminal heads, conſiſting of numerous yellow antheræ, ſurrounded by a circle of large ſpreading leaves. Fruit-ſtalks from the divarication of the branches on a different plant from the male flowers, long, ſlender, each bearing a large globoſe oblique capſule, with a ſmall beaked lid. Theſe capſules are to be found throughout the ſummer.

We do not heſitate to refer this and the preceding to the genus *Bryum* rather than *Mnium*, as the male flowers of the latter ought to be quite naked. Linnæus ran counter to that definition in reckoning every thing a *Mnium* in which male flowers were diſcoverable at all, whether naked or leafy.

90.

BARTRAMIA marchica.

Bog Bartramia.

CRYPTOGAMIA Musci.

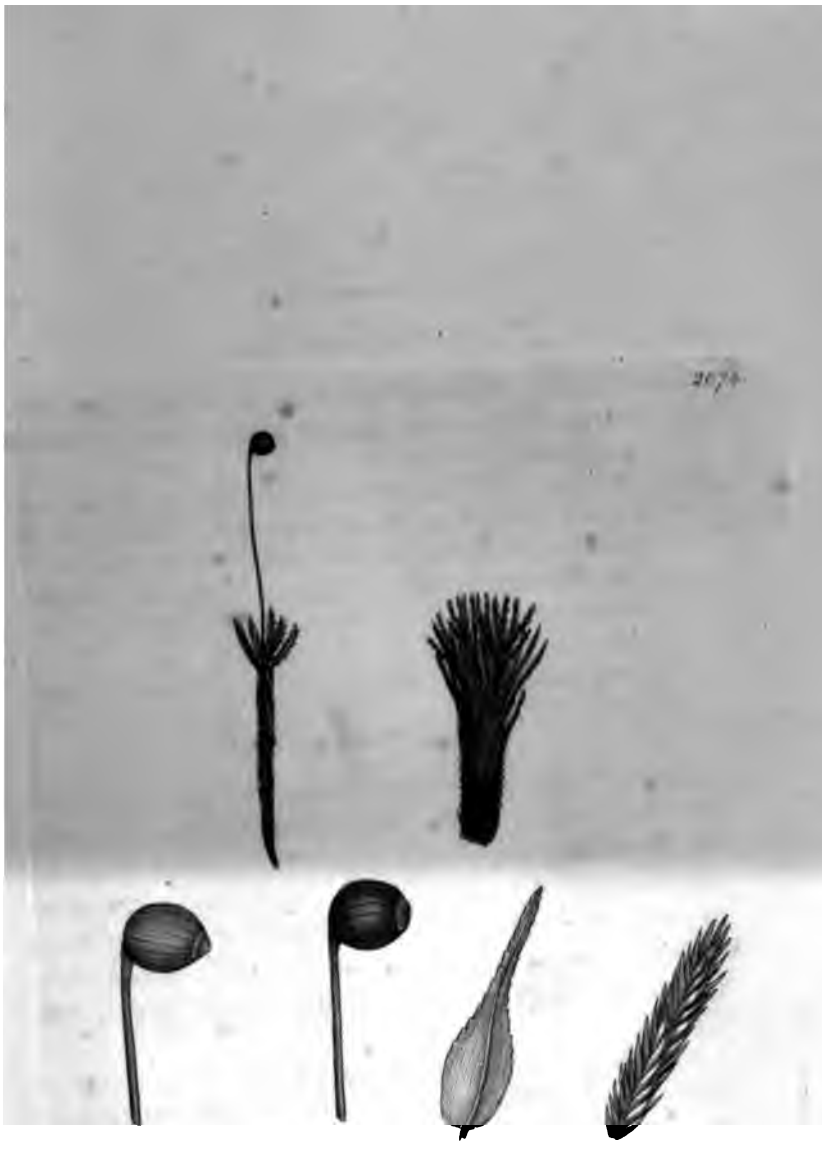
GEN. CHAR. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-stalks erect, taller than the stems. Leaves lanceolate, finely serrated, imbricated in five rows. Branches clustered, slender, upright.

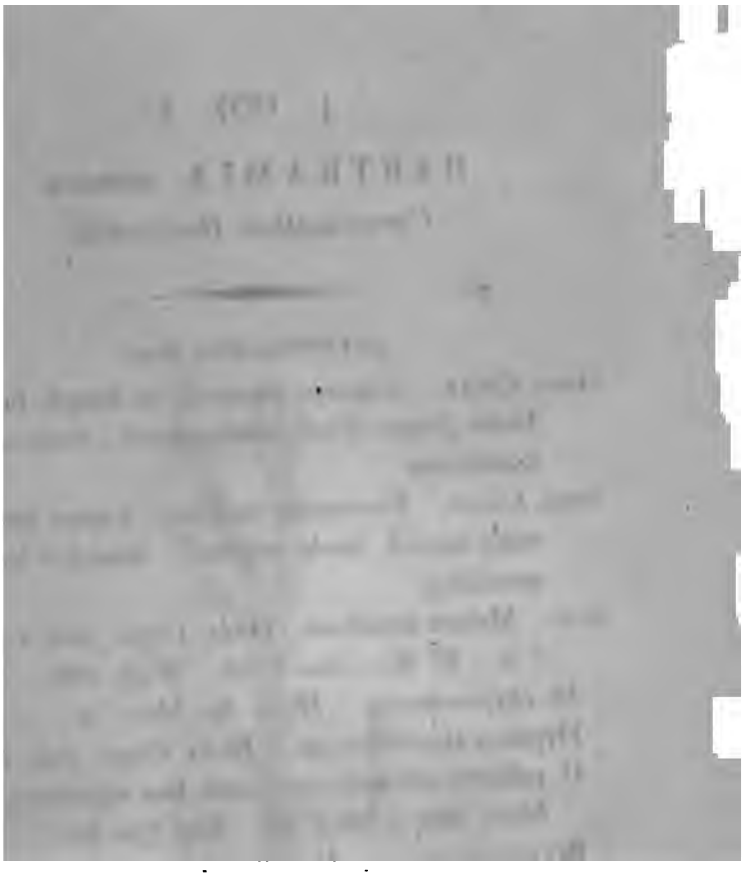
SYN. Bartramia marchica. *Web. and Mohr. Ind. Mus. 5. Swartz in Schrad. Journ. for* 1800. 180.
Leskia marchica. *Willd. Berol.* 319.
Mnium marchicum. *Hedw. Crypt. v.* 2. 108. *t.* 39.

DISCOVERED at the falls of Moness by Aberfeldy, in the Highlands of Scotland, in 1808, by Mr. W. Borrer and Mr. W. J. Hooker, but without fructification. That deficiency we have supplied from East Indian specimens, exactly agreeing with the British ones, which we have the authority of our intelligent friend last named to say, are what is called by mistake *B. fontana* in his paper on Nepal Mosses, Tr. of L. Soc. v. 9. 317.

This species has extremely the aspect of *B. fontana*, (*Bryum fontanum*,) *t.* 390, but when examined with a common magnifying glass, the leaves are found much more closely imbricated, ranged in 4 or 5 spiral rows, lanceolate, with longer more taper terminations, and when more highly magnified they prove to be finely serrated, which Mr. J. D. Sowerby has first detected, for Hedwig represents them entire. Several young, short, leafy, angular branches are clustered round the base of each fruitstalk, which rises much above them, being near 2 inches long, red, rather stronger than in the *fontana*. The capsule is somewhat smaller and more globular, but scarcely any difference is observable in the lid.



Oct 1 1815 published by J.S. Sowerby London



BARTRAMIA arcuata.

Curve-stalked Bartramia.

CRYPTOGAMIA Musci.

Gen. Char. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

Spec. Char. Fruit-stalks recurved. Leaves lanceolate, many-nerved, finely serrated. Branches scattered, spreading.

Syn. Mnium arcuatum. *Dicks. Crypt. fasc.* 3. 2. *t.* 7. *f.* 3. *H. Sicc. fasc.* 6. 19. *With.* 803.

M. chrysocomum. *Hedw. Sp. Musc.* 74.

Bryum chrysocomum. *Dicks. Crypt. fasc.* 2. 12.

B. palustre erectum, comâ luteâ, basi nigricante. *Dill. Musc.* 302. *t.* 39. *f.* 36. *Raii Syn.* 83.

Bryum arcuatum. *Hall.* 255.

THIS elegant moss is a native of alpine bogs. It was known,

Vol. I. 1803. Published by Jas Sowerby, London.

91.

BARTRAMIA arcuata.

Curve-stalked Bartramia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* spherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-stalks recurved. Leaves lanceolate, many-nerved, finely serrated. Branches scattered, spreading.

SYN. Mnium arcuatum. *Dicks. Crypt. fasc.* 3. 2. *t.* 7. *f.* 3. *H. Sicc. fasc.* 6. 19. *With.* 803.

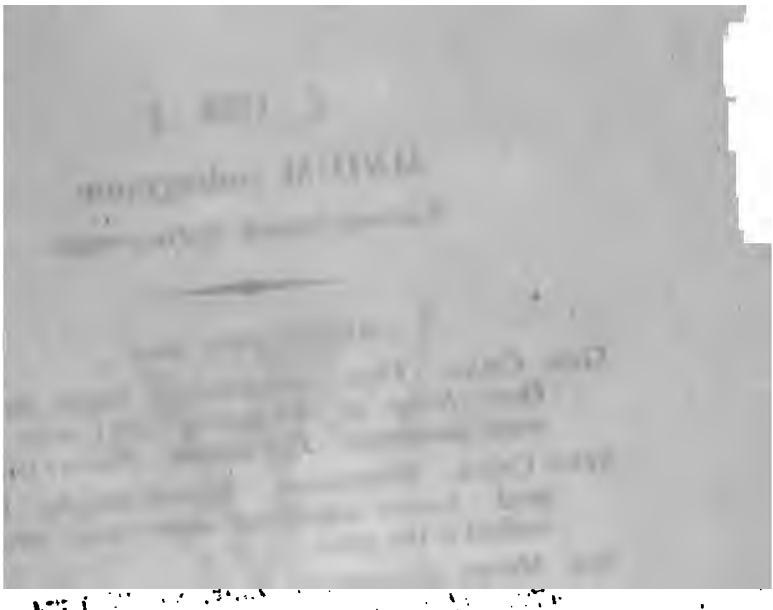
M. chrysocomum. *Hedw. Sp. Musc.* 74.

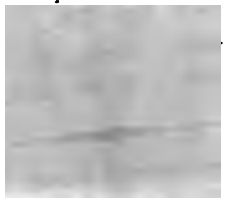
Hypnum chrysocomum. *Dicks. Crypt. fasc.* 2. 12.

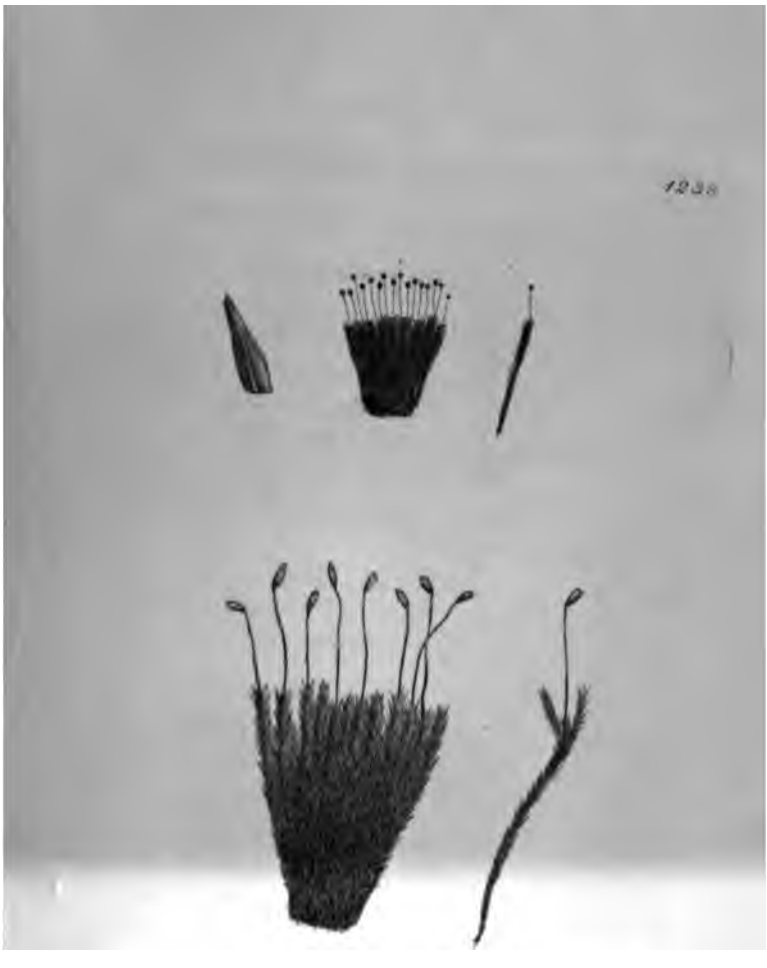
H. palustre erectum, comâ luteâ, basi nigricante. *Dill. Musc.* 302. *t.* 39. *f.* 36. *Raii Syn.* 83.

Bryum arcuatum. *Hull.* 255.

THIS elegant moss is a native of alpine bogs. It was known, without fructification, to Richardson and Dillenius; but the







Nov.1.1803 Published by Jas. Sowerby, London.

92.

MNIUM androgynum.

Narrow-leaved Spring-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* cylindrical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a laciniated membrane. *Veil* smooth. *Flowers* terminal.

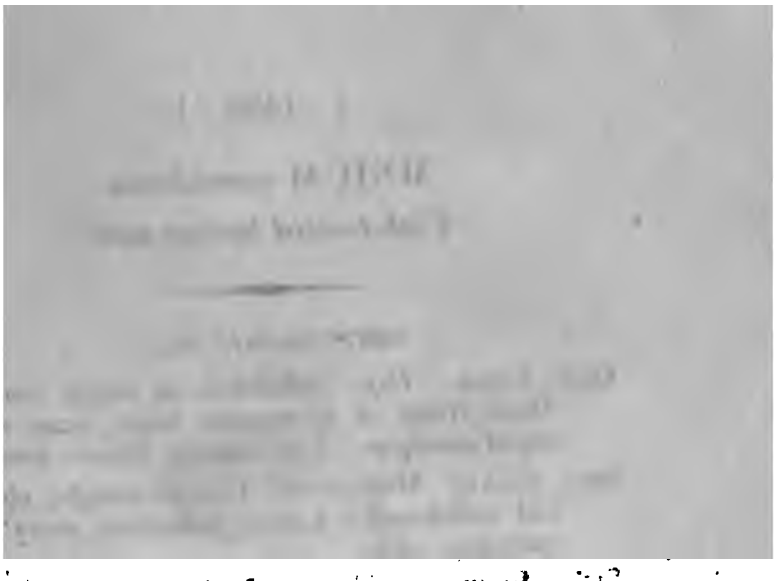
SPEC. CHAR. Monoecious. Capsule straight. Lid conical. Leaves imbricated every way, spreading, toothed at the point.

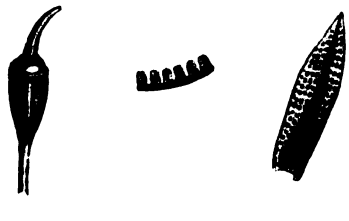
SYN. Mnium androgynum. *Linn. Sp. Pl.* 1574. *Huds.* 472. *Hedw. Theor.* 149. *t.* 12. *f.* 48—50.

M. perangustis et brevibus foliis. *Dill. Musc.* 230. *t.* 31. *f.* 1. *Raii Syn.* 78.

Bryum androgynum. *Hedw. Sp. Musc.* 178. *With.* 836. *Hull.* 262. *Abbot.* 238.

IT was with singular pleasure I found, on a careful scrutiny of the genera of mosses for the *Flora Britannica*, that the original genus of *Mnium* in Dillenius ought on every account to be preserved separate from *Bryum*, and that the furrowed capsule formed its decisive and unexceptionable character. No real *Bryum* has any signs of this character; nor ever H





Nov.r 1. 1803 Published by Jas. Sowerby, London.

93.

MNIUM conoideum.

Club-fruited Spring-moss.

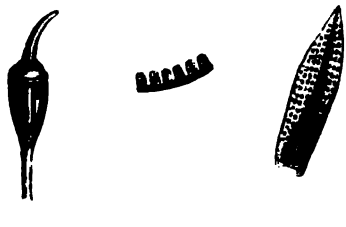
CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* cylindrical, at length furrowed. *Outer fringe* of 16 tapering teeth; inner a laciniated membrane. *Veil* smooth. *Flowers* terminal.

SPEC. CHAR. Monoecious? Capsule straight, obovate. Lid awl-shaped. Leaves imbricated every way, spreading, entire.

SYN. Bryum conoideum. *Dicks. Crypt. fasc.* 4. 9. *t.* 11. *f.* 2.

THIS moss unquestionably belongs to the same genus with the preceding, with which it agrees closely in habit, especially in the peculiar round dots of its leaves, as well as in the essential generic character of the furrowed capsule. Mr. Dickson found it on the trunks of Beeches near Inverary. Our specimens were gathered by Mr. Templeton, on Pear-trees in his orchard near Belfast; and it is to this gentleman, through Mr. Turner, we are entirely indebted for a knowledge of the inner fringe, which he describes and delineates in fine capil-



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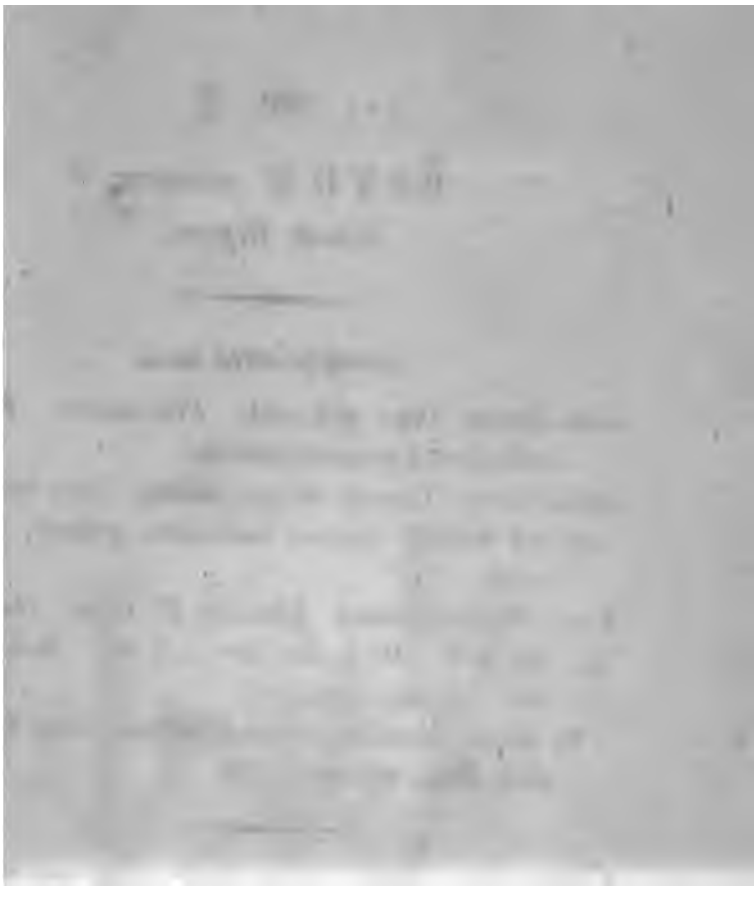


94.

BRYUM palustre.

Marsh Bryum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* with a lid. *Veil* smooth. *Flower-stalk* from a terminal tubercle.

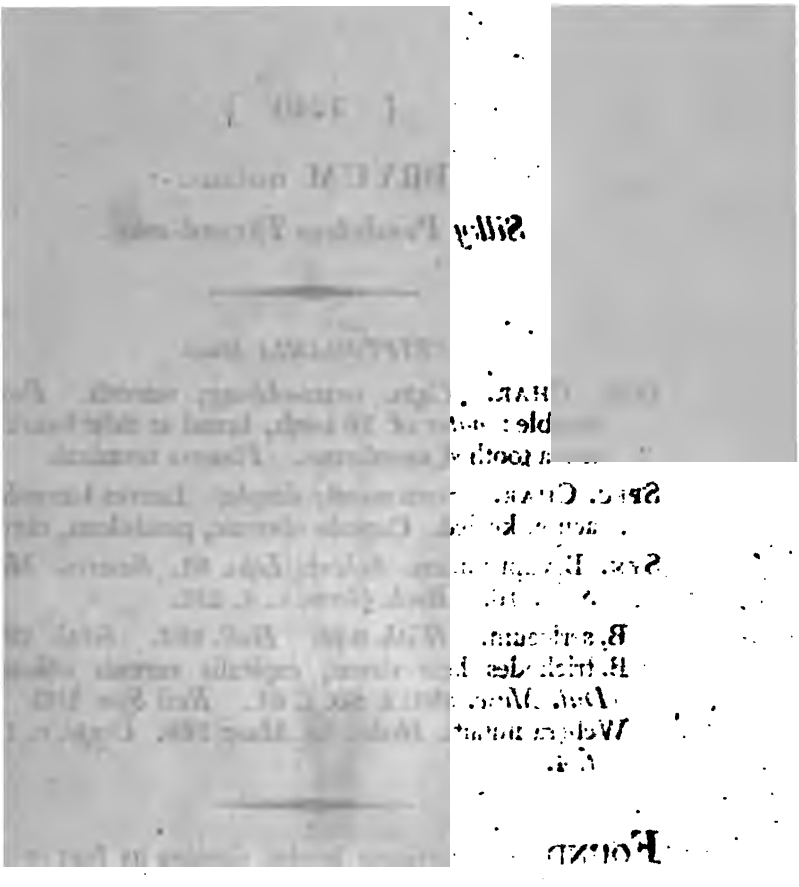
SPEC. CHAR. Capsule oblique, oblong. Stem branched and forked. Leaves lanceolate, pointed, waved, entire.

SYN. Mnium palustre. *Linn. Sp. Pl.* 1574. *Huds. Fl. An.* 472. *With. Bot. Arr. v.* 3. 85. *Relh. Cant.* 398. *Lightf. Scot.* 708.

M. majus, ramis longioribus bifurcatis. *Raii Syn.* 78. *Dill. Musc.* 233. *t.* 31. *f.* 3.

COMMON in boggy meadows and the moist parts of heaths, producing its fructification in May and June.

Its stems form thick tufts, and they are matted together by a dense brown woolliness which clothes their lower part; they are two or three times branched or forked, thickly clothed with



95.

BRYUM nutans.

Silky Pendulous Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovato-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stem mostly simple. Leaves lanceolate, acute, keeled. Capsule obovate, pendulous, obtuse.

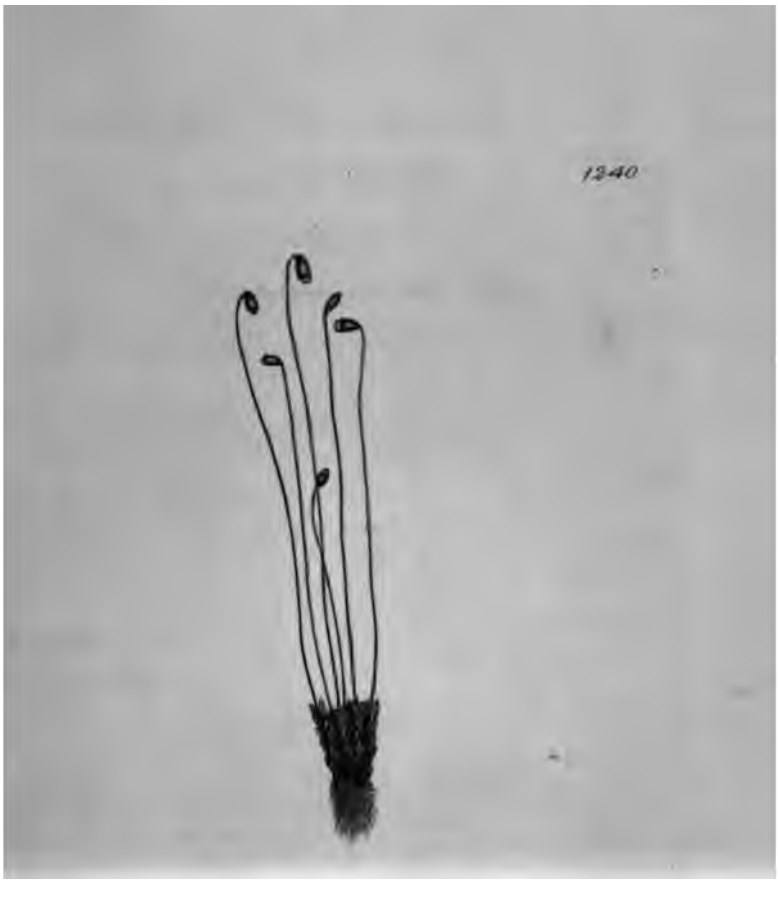
SYN. Bryum nutans. *Schreb. Lips.* 81. *Swartz. Musc. Suec.* 46. *Roth. Germ. v.* 3. 252.

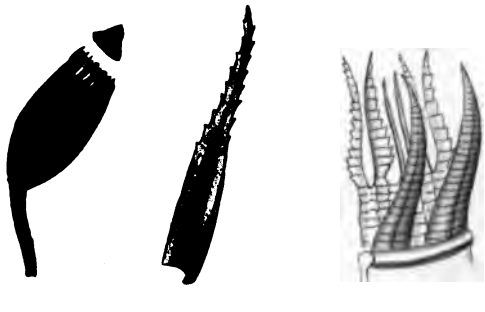
B. sericeum. *With.* 839. *Hull.* 265. *Sibth.* 292.

B. trichodes læte virens, capitulis cernuis oblongis. *Dill. Musc.* 391. *t.* 50. *f.* 61. *Raii Syn.* 100.

Webera nutans. *Hedw. Sp. Musc.* 168. *Crypt. v.* 1. 9. *t.* 4.

FOUND on mountainous heaths, ripening its fruit in July and August. Dillenius gathered it near Woolwich; the Rev. Dr. Abbot in Apsley wood, Bedfordshire; and Mr. Turner near Dublin. We have seen it about rocks on Cromford moor, near Matlock.





Nov.r 1. 1808. Published by Jas Sowerby. London.

BRYUM aureum.

Golden Bryum.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſ.* with a lid. *Veil* ſmooth. *Flower-ſtalk* from a terminal tubercle.

SPEC. CHAR. Capſule drooping, pear-ſhaped with a ſtricture in the middle. Leaves briſtle-ſhaped.

SYN. Bryum aureum. *Hudſ. Fl. An.* 487. *Dickſ. H. Sicc. faſc.* 8. 19.

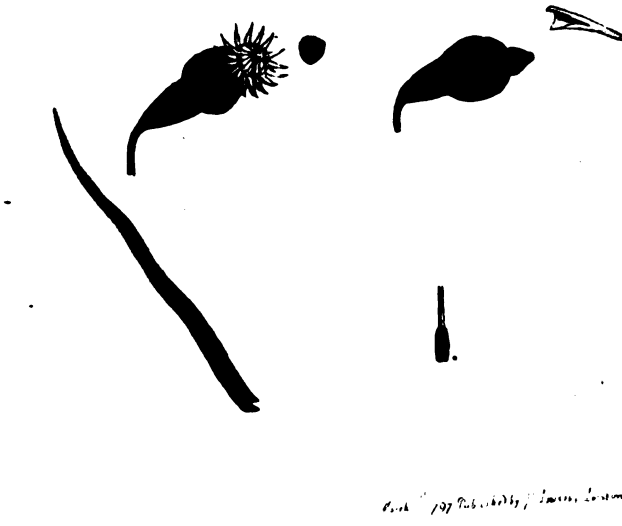
Mnium pyriforme. *Linn. Sp. Pl.* 1576. *With. Bot. Arr. v.* 3. 89.

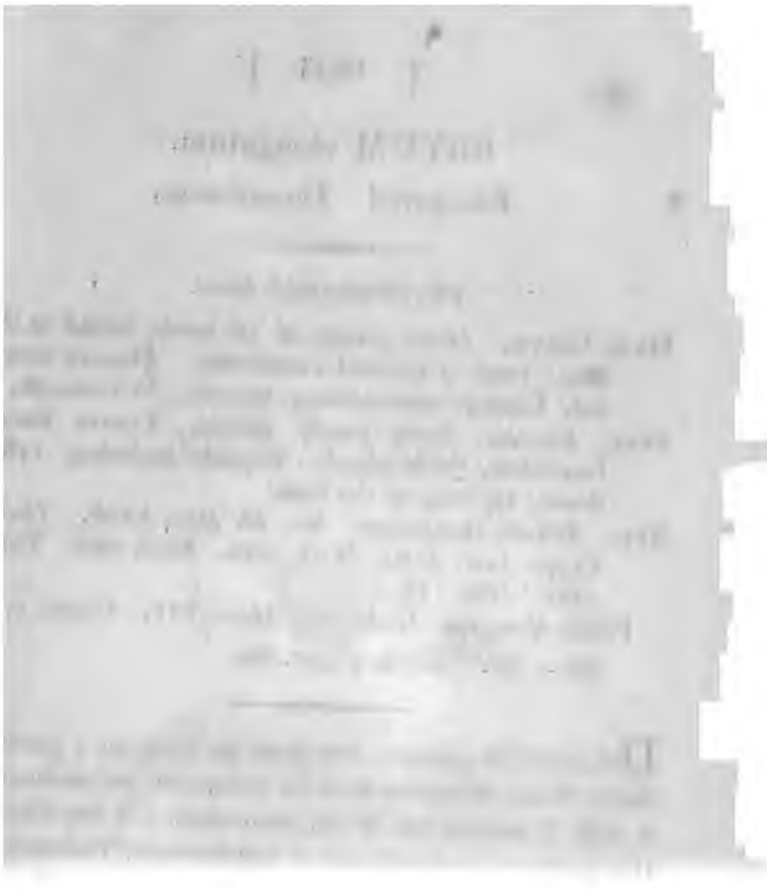
B. trichodes aureum, capſulis piriformibus nutantibus. *Dill. Muſc.* 391. *t.* 50. *f.* 60.

THE rare and elegant little moſs here delineated was originally found by Dr. Deering on the rocks of Nottingham-park, and ſent by him to Dillenius. Mr. Hudſon ſeems never to have gathered it. Mr. Crowe and Mr. Dickſon found it ſome years ago in Surrey, and Dr. Smith met with it very unexpectedly in 1790, as well as repeatedly ſince, on the inſide of the walls of ſome frames for green-houſe plants, in the garden of Meſſrs. Lee and Kennedy, Hammerſmith, perfecting its capſules in July, as the Rev. Mr. Wood of Leeds likewiſe obſerved them in Wales.

The ſtems grow erect, in little tufts, to the height of ¾ of an inch, and are clothed with light green, very delicate and ſlender, tapering, entire leaves, ſome of the uppermoſt of which are much longer than the reſt, forming a tuft or ſtar, in the centre of which ſtand the antheræ in ſome individuals, and in others the fruit-ſtalk (for ſo the *pedunculus* may properly be called in this tribe), which ariſes, from an oblong tubercle, to the height of above an inch. This ſtalk is capillary, ſlightly waved, of a vivid gold or orange colour. Capſules pear-ſhaped, green when young, ripening into the ſame bright colour as the ſtalk, cloſed with an hemiſphærical lid, covered when young with a white ſlender veil, which Dillenius never ſaw. The capſule is bordered with 16 ſpreading white teeth, and cloſed with other unequal ones beſides, according to Hedwig's character of *Bryum*.

389





97.

BRYUM elongatum.

Elongated Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

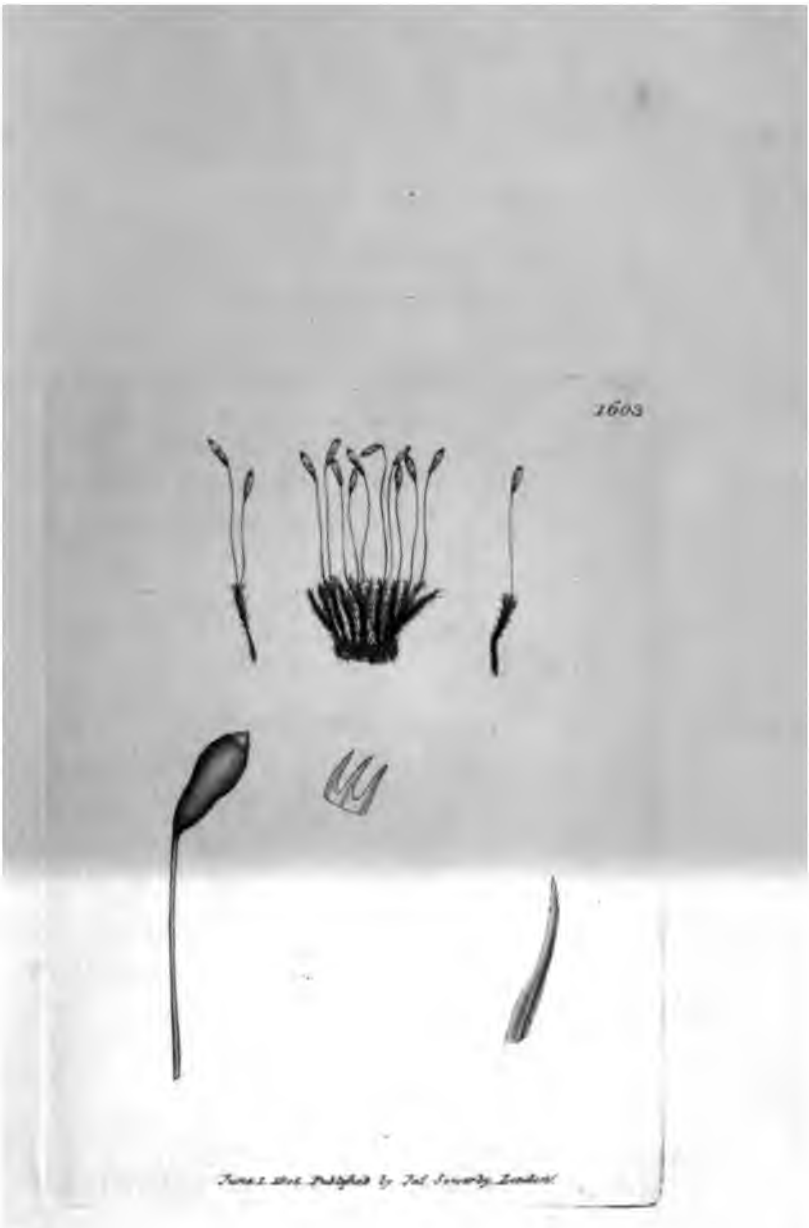
SPEC. CHAR. Stem nearly simple. Leaves linear-lanceolate, thick-edged. Capsule inclining, cylindrical, tapering at the base.

SYN. Bryum elongatum. *Sm. Fl. Brit.* 1349. *Dicks. Crypt. fasc.* 2. 8. *With.* 832. *Hull.* 263. *Turn. Musc. Hib.* 114.

Pohlia elongata. *Hedw. Sp. Musc.* 171. *Crypt. v.* 1. 96. *t.* 36. *Ehrh. Crypt.* 64.

DILLENIUS gathered this moss on Clogwyn y garnedd, North Wales, as appears from his herbarium, and confounded it with *B. nutans*, his N° 61, from which it is very distinct. Our specimens were collected on Ingleborough, Yorkshire, by Mr. W. Brunton. The capsules ripen in June and July.

Roots slender, tufted, black, perennial. Stems erect, slender, generally about half an inch high, simple, leafy, sometimes, from luxuriance, branched. Leaves dark shining green, rather spreading, lanceolate or linear-lanceolate, acute, beardless, single-ribbed, with an entire, somewhat thickened margin. Fruitstalk an inch or inch and half high, mostly solitary, upright, of a shining tawny red, yellowish at the top. Capsule more or less inclining, not pendulous; when young, obovate and a little curved; when ripe longer, and almost cylindrical, its lower half, or thereabouts, consisting of an inversely conical base. The mouth is narrow, the lid short, conical and acute, of an orange hue. Outer fringe rather short, pale brown; inner white, simply toothed, as Hedwig describes it.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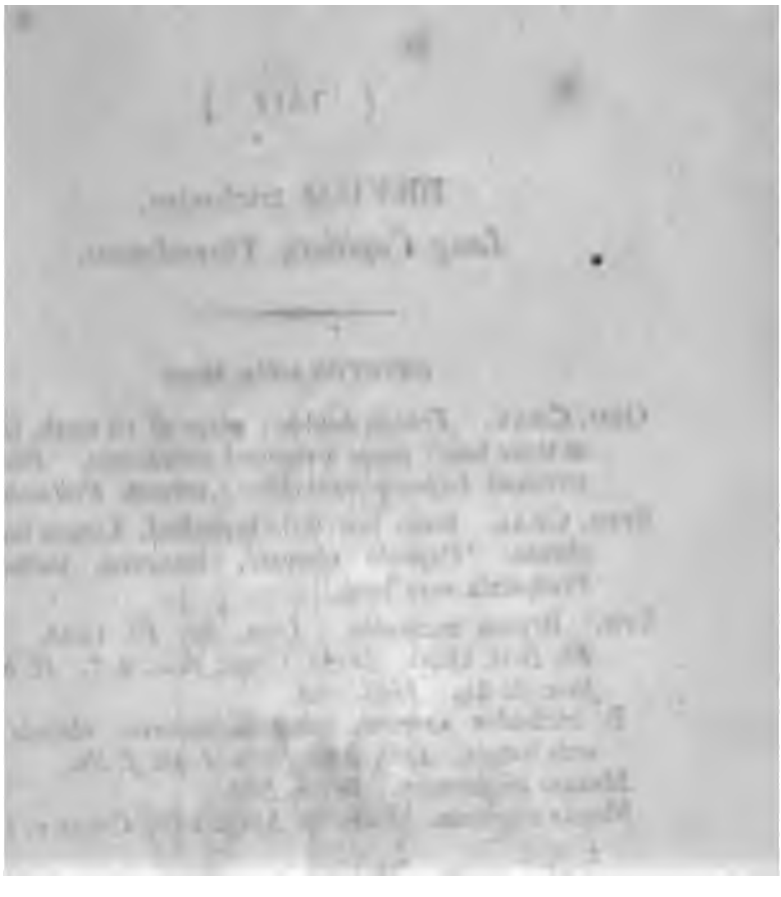


BRYUM trichodes.

Long Capillary Thread-moss.

CRYPTOGAMIA *Musci.*

Gen. Char. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* cernuous-oblong, smooth. *Veil* smooth.

Spec. Char. Stem but little branched. Leaves linear, nerved. Capsule obovate, incurved, inclining. Fruit-stalk very long.

Syn. Bryum trichodes. *Linn. Sp. Pl.* 1585. *Sm. F. Brit.* 1580. *Dicks. Crypt. fasc.* 2. 7. *H. Sicc. fasc.* 5. 11. *Huds.* 383.

B. trichodes aureum, capsulis incurvis obtusis in sicco striatis. *Dill. Musc.* 389. *t.* 49. *f.* 58.

Mnium nigrescens. *With.* 800.

Mnium nigrescens. *Hedw. Sp. Musc.* 173. *Crypt. v.* 1. 1. *t.* 3, 2.

THIS moss, to which Hedwig has devoted the 2 first plates of his great work, is remarkable for having longer fruit-stalks,

Oct.r 1806. Published by Jas Sowerby London

99.

BRYUM dealbatum.

Pale-leaved Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

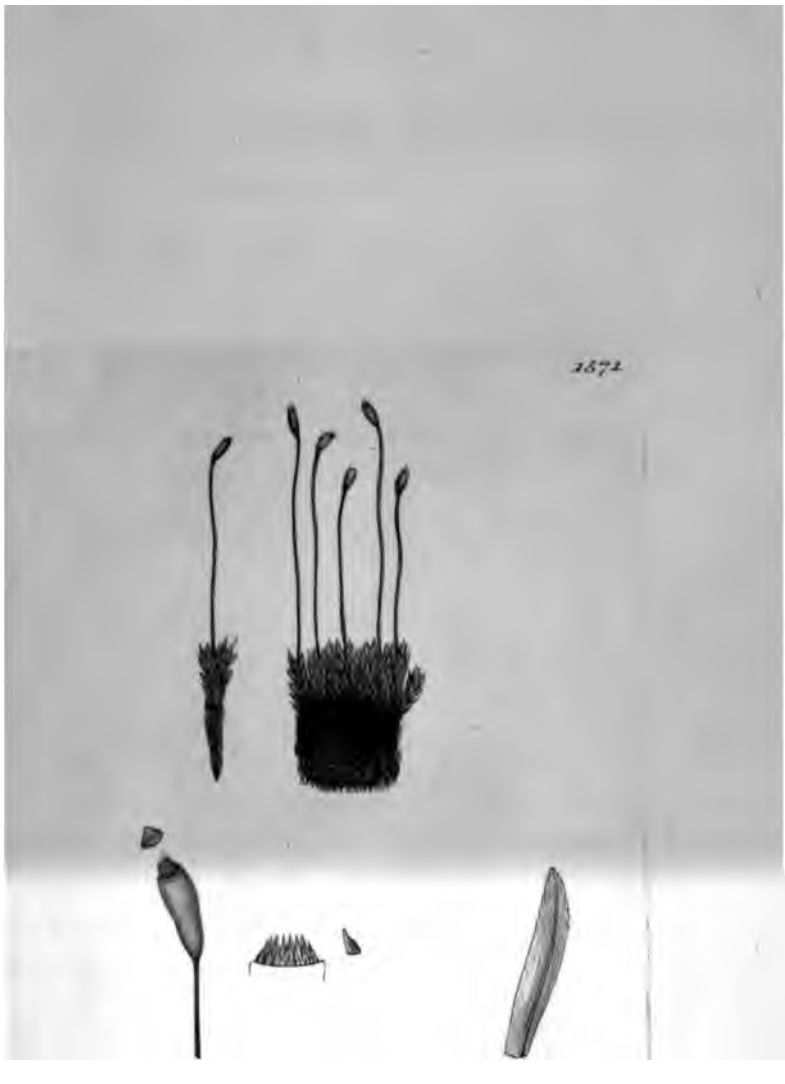
SPEC. CHAR. Stem very short, simple. Leaves lanceolate, reticulated, obscurely serrated at the point. Capsule obovate, inclining.

SYN. Bryum dealbatum. *Sm. Fl. Brit.* 1350. *Dicks. Crypt. fasc.* 2. 8. *t.* 5. *f.* 3. *With.* 816. *Hull.* 258. *Don. Herb. fasc.* 4. 99.

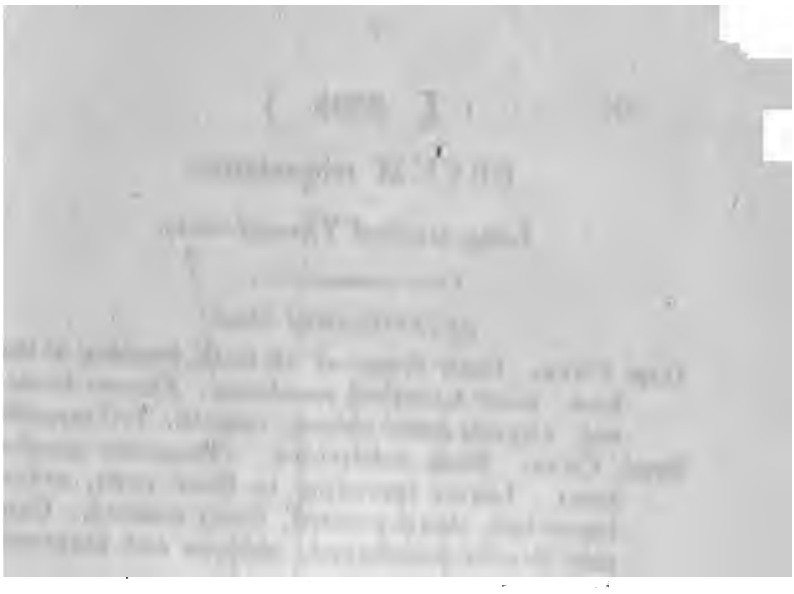
Meesia dealbata. *Swartz. Musc. Suec.* 44. 94. *t.* 5. *f.* 10. *Hedw. Sp. Musc.* 174. *t.* 41. *f.* 6—9.

COMMUNICATED by our very intelligent and indefatigable friend Mr. G. Don from a marshy spot in the King's Park, Edinburgh. It bears its capsules in the spring and summer, and is presumed to be perennial. Mr. Crowe gathered the same on sandy turfy ground at St. Faith's near Norwich.

It is known by the pale whitish hue of its leaves. The stems are short and simple. Leaves pellucid, of a membranous appearance, reticulated with rather coarse veins, lanceolate, acute, single-ribbed, very obscurely serrated near the point only. Fruitstalk solitary, an inch and half high, terminal, erect, red, rather wavy. Capsule inclining, particularly when dry, pear-shaped with a contracted base, curved, obtuse, brown, opaque, not polished. Lid convex, almost hemispherical. Outer fringe short, reddish; inner twice as long, yellowish, formed of 16 teeth united by a reticulated base.



March 1 1806. Published by Jas Sowerby, London.



100.

BRYUM triquetrum.

Long-stalked Thread-moss.

CRYPTOGAMIA Musci.

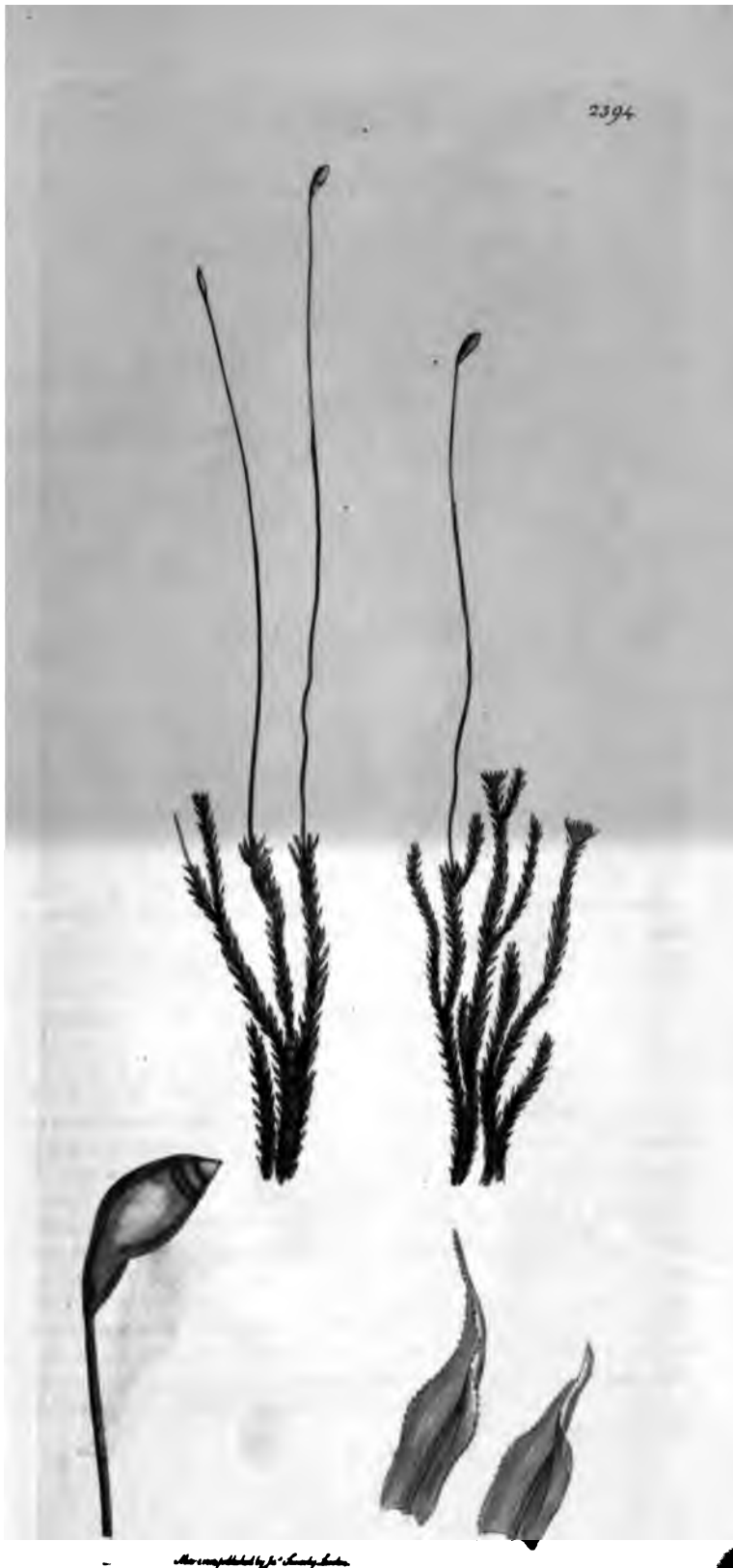
GEN. CHAR. *Outer fringe* of 16 teeth, broadest at the base; *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem subdivided. Branches simple, erect. Leaves spreading in three rows, ovato-lanceolate, sharp-pointed, finely serrated. Capsule slender-pearshaped, oblique and incurved. Lid conical.

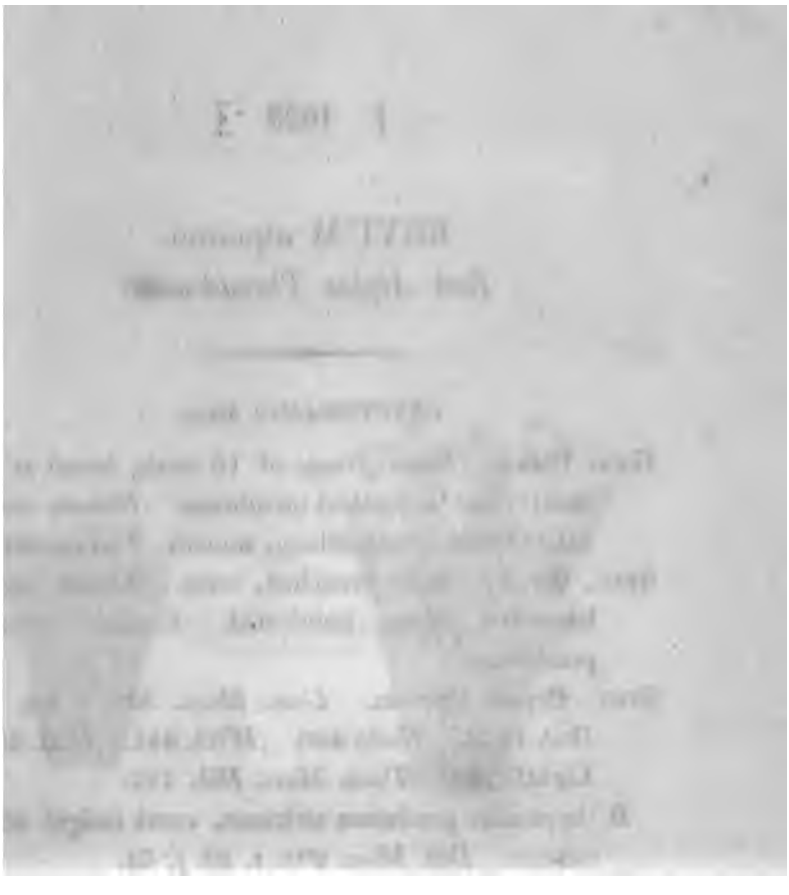
SYN. Bryum triquetrum. *Turn. Musc. Hib.* 115.
Mnium triquetrum. *Linn. Sp. Pl.* 1578, excluding the synonyms. *Ehrh. Phytoph.* 59.
Meesia longiseta. *Hedw. Sp. Musc.* 173. *Crypt. v.* 1. 56. *t.* 21, 22. *Swartz. Musc. Suec.* 43.

WE introduce this stately moss to the acquaintance of British botanists, on the authority of Mr. Turner, who mentions it as discovered by Dr. Scott, "about the borders of some lake in the north of Ireland." It bears fruit in July, and is perennial, growing always in a spongy peat soil. Having never seen Irish specimens, we are obliged to have recourse to Swedish and Swiss ones, in very fine preservation; by which we are enabled to correct certain inaccuracies in our predecessors.

The stems grow in tufts, and are several inches high; not simple, but branched; the annual shoots indeed are usually simple and upright. Leaves in three rows, spreading, light green, nearly ovate, keeled, with a sharp point more or less elongated, a strong rib, but no awn; the edges under a high magnifier prove to be finely serrated, by no means entire. The leaves of former seasons are permanent, blackened, intermixed with rusty-black down. Young flowers, encompassed with star-like leaves, terminate the branches. These seem destined to bear fruit in the following summer. The fruitstalks are terminal, solitary, uncommonly long, (even three or four inches,) somewhat wavy, red and very elegant. Capsule pale brown, smooth, pearshaped, a little oblique, bent where its cavity reaches the solid base, or spurious apophysis. Lid conical, short, acute. Outer fringe short and blunt, as described by Hedwig.



Mac. Lang. published by J. Sowerby, London.



BRYUM alpinum.

Red Alpine Thread-moss.

CRYPTOGAMIA Musci.

Gen. Char. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

Spec. Char. Stem branched, erect. Leaves ovato-lanceolate, acute, imbricated. Capsule oblong, pendulous.

Syn. Bryum alpinum. *Linn. Mant.* 309. *Sm. Fl. Brit.* 1353. *Huds.* 490. *With.* 841. *Hull.* 254. *Lapyl.* 738. *Turn. Musc. Hib.* 125.

B. hypnoides pendulum sericeum, comâ insigni atro-rubente. *Dill. Musc.* 394. *t.* 50. *f.* 64.

NOT unfrequent on the highest alpine rocks of Britain,

July 1, 1806. Published by Jas. Sowerby, London.

BRYUM cæspititium.

Lesser Matted Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched from the base, tufted. Leaves ovato-lanceolate, flat, hair-pointed, entire. Capsule obovate, pendulous.

SYN. Bryum cæspititium. *Sm. Fl. Brit.* 1354. *Linn. Sp. Pl.* 1586. *Hedw. Sp. Musc.* 180. *Huds.* 488. *Hull.* 256. *Sibth.* 290. *Lightf.* 736. *Curt. Lond. fasc.* 3. *t.* 67. *f.* 1. *Turn. Musc. Hib.* 120.

B. pendulum ovatum cæspiticium et pilosum, setâ bicolori. *Dill. Musc.* 396. *t.* 50. *f.* 66, A—E.

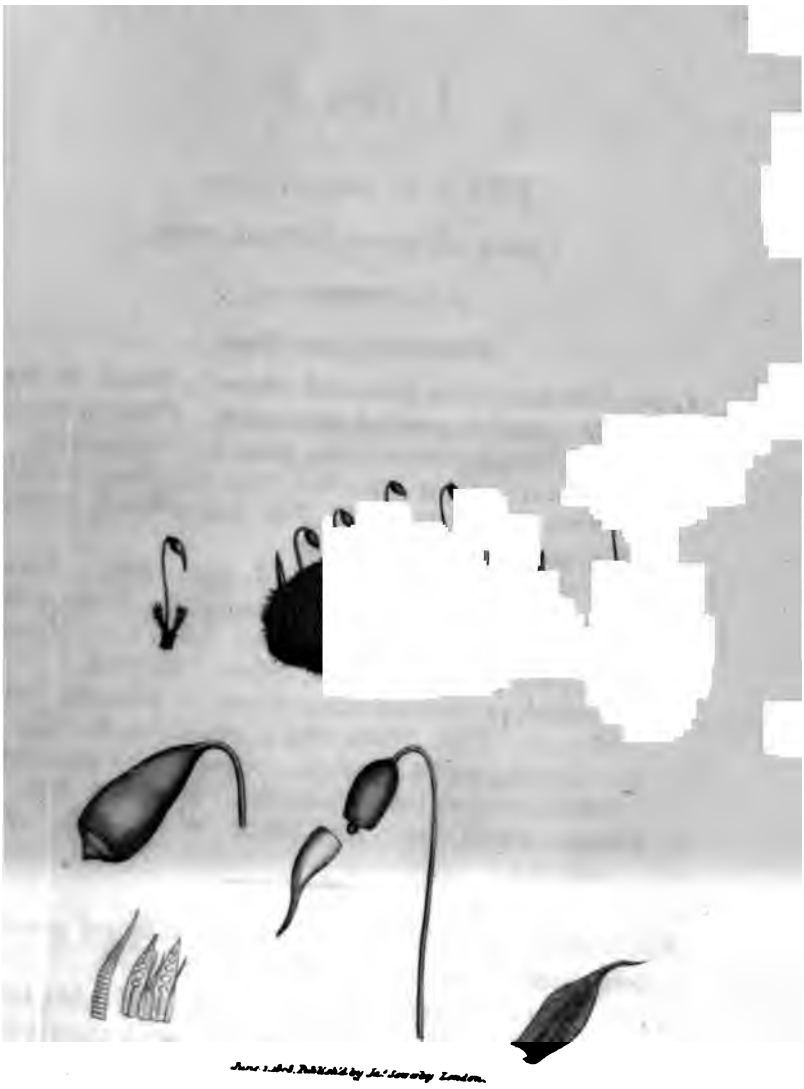
B. trichoides capitulis reflexis, pediculis imâ medietate rubris, summâ luteo-virentibus. *Raii Syn.* 100.

Mnium cæspititium. *Relh.* 421. *With.* 807. *Abbot.* 285.

COMMON on walls and roofs, sandy banks and gravelly grassy places, bearing fruit from February to April.

The stems are perennial, and form dense cushion-like tufts, their branches dividing from the very base, each about 3 or 4 lines long, simple, spreading, leafy, obtuse and terminated by a starry head of leaves larger than the rest. Leaves all bright green, ovato-lanceolate, flattish, entire, with a single rib which ends in a hair-like point. Fruit-stalks solitary from the base of the branches, capillary, upright, an inch or more in height, their lower part crimson, the upper green. Capsule pendulous, ovate when young; then obovate, with a convex, pointed lid; at length dilated at the mouth. Fringe of pale yellow, very acute teeth. Veil taper, sharp-pointed.

It will be seen by referring to *t.* 1601 how different *Bryum bicolor* is from this species.



June 1.1841. Published by Ja.s Lowry London.

104.

BRYUM bicolor.

Two-coloured Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

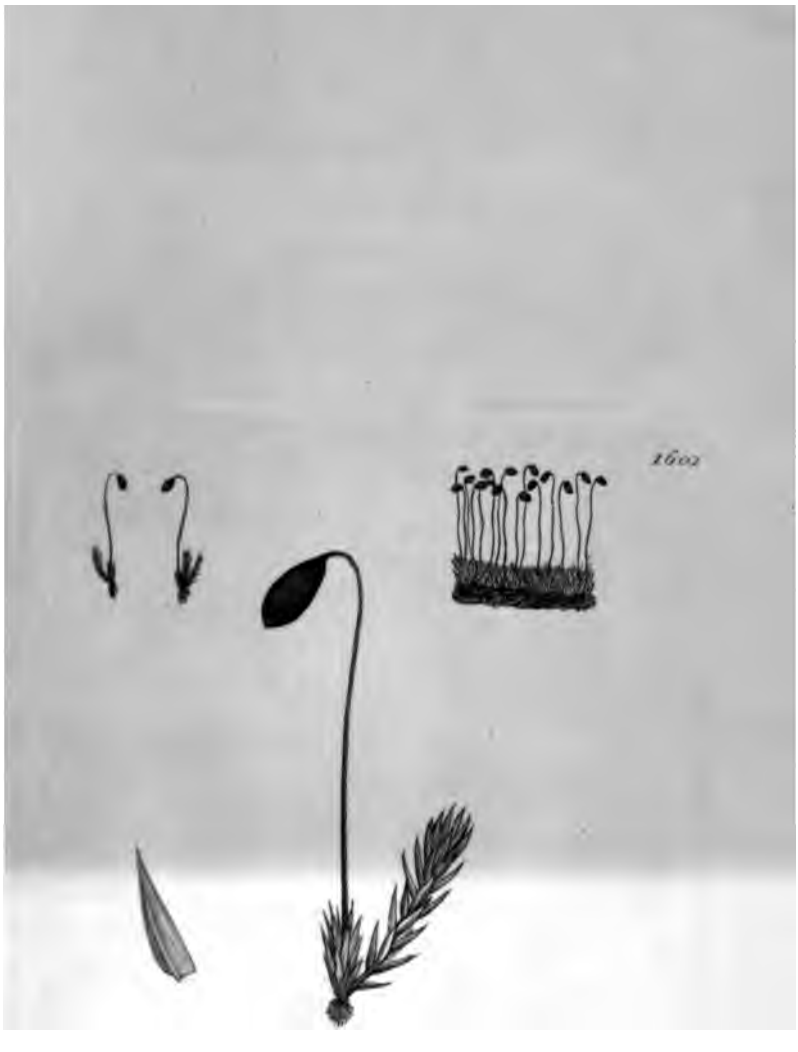
SPEC. CHAR. Stem very short, branched at the base. Leaves ovato-lanceolate, pointed. Capsule ovate, obtuse, pendulous.

SYN. Bryum bicolor. *Dicks. Crypt. fasc.* 4. 16. *Sm. Fl. Brit.* 1355. *Turn. Musc. Hib.* 121. *t.* 11. *f.* 2.
B. n. 66, varietas parva. *Dill. Musc.* 397. *t.* 50. *f.* 66, F, G.

COMMUNICATED by Mr. W. Brunton from the neighbourhood of Ripon, Yorkshire. It bears capsules in March, and is supposed to be perennial. I have it from Switzerland, and have also gathered it near Rome. It loves a barren sandy soil.

The plants grow in rather loose tufts, and are very short,

[redacted]



Mier 1808. Published by Jas. Sowerby London.

105.

[1602]

BRYUM argenteum.

Silvery Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stems tufted, branched from the base. Leaves ovate, concave, imbricated, with pellucid colourless bristly points. Capsule ovate, pendulous.

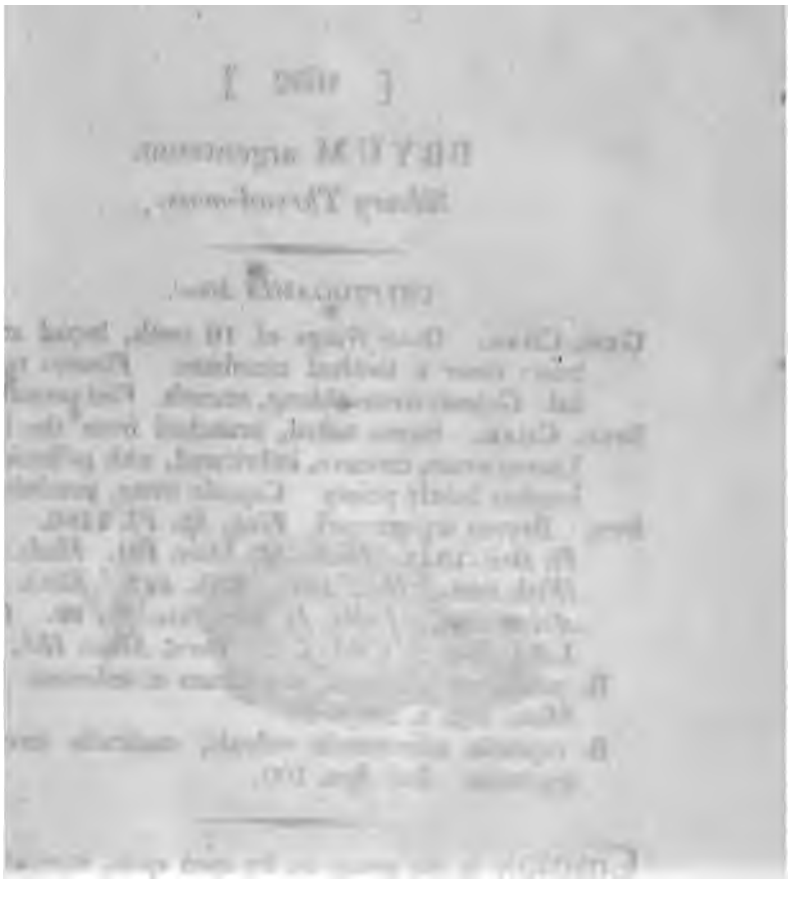
SYN. Bryum argenteum. *Linn. Sp. Pl.* 1586. *Sm. Fl. Brit.* 1355. *Hedw. Sp. Musc.* 181. *Huds.* 489. *With.* 838. *Hull.* 256. *Relh.* 427. *Sibth.* 293. *Abbot.* 243. *Dicks. H. Sicc. fasc.* 15. 19. *Curt. Lond. fasc.* 3. *t.* 67. *f.* 2. *Turn. Musc. Hib.* 122.

B. pendulum julaceum, argenteum et sericeum. *Dill. Musc.* 392. *t.* 50. *f.* 62.

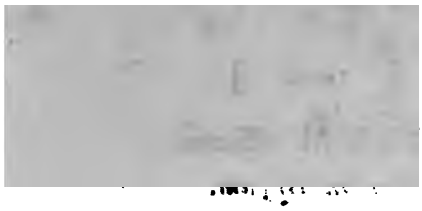
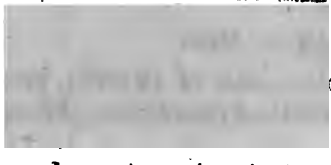
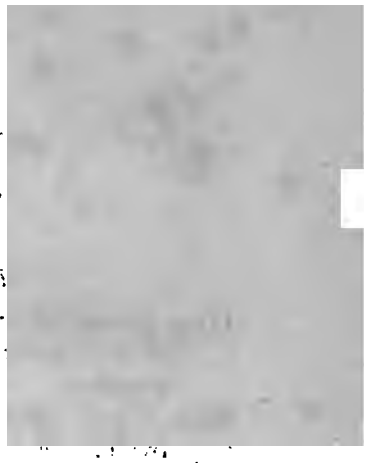
B. capitulis subrotundis reflexis, cauliculis teretibus argenteis. *Raii Syn.* 100.

COMMON in the spring on dry open spots, especially on the tops of walls and stone roofs, where its beautiful silvery hue in moist weather renders it impossible to be overlooked or mistaken.

The stems form perennial, round, cushion-like tufts, and when separated are found to be much branched, about half an inch high, with cylindrical blunt branches, tapering at the base. Leaves closely imbricated on all sides, of a broad ovate figure, swelling, entire, single-ribbed, tipped with a hair, more or less of their upper part pellucid and colourless, which gives the silvery appearance above mentioned. The fruitstalks come forth in the early spring, from the tops of old branches, just where the new ones originate, and are not an inch long, red below, pale and curved at the summit. Capsule of a short ovate form, brown or reddish. Lid convex with a point. Veil small, soon falling off. Fringe yellow.



May 1. 1806. Published by Jas. Sowerby, London.

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May 1 1803 Published by Jas Sowerby, London.

107.

[2270]

BRYUM julaceum.

Slender-branched Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base; *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched from the base. Leaves ovate, concave, imbricated, obtuse, pointless. Capsule club-shaped, pendulous.

SYN. Bryum julaceum. *Schrad. Spicil.* 70. *Sm. Fl. Brit.* 1357.

B. filiforme. *Dicks. Crypt. fasc.* 4. 16.

B. argenteum β. *Linn. Sp. Pl.* 1586. *Huds.* 489. *With.* 839. *Hull.* 256.

B. pendulum, surculis teretibus viridibus. *Dill. Musc.* 394. *t.* 50. *f.* 63.

B. trichodes, capitulis reflexis, viridissimum holosericeum. *Dill. Giss.* 226. *app.* 86. *t.* 2. *f.* F.

DILLENIUS says he gathered this on the gravel walks of the Oxford garden. Mr. Dickson found it in moist rather mountainous places in Scotland, and our specimens were gathered by Mr. G. Don on the mountain of Clova in Angusshire, in July or August.

This elegant species has been supposed a variety of *B. argenteum*, *t.* 1602, but without much examination. It is much larger, with long slender erect and acute branches, forming dense tufts, of a bright silky green, not silvery. Leaves small, closely imbricated, ovate, entire, rather concave, single-ribbed in the lower part, obtuse, without any hair-like point. Fruit-stalk from the base of a branch, an inch or more in height, wavy, red. Capsule pendulous, brown, smooth, of a slender obovate or pear-shaped form. Lid convex with a little point.

BRYUM julaceum.

Slender-branched Thread-moss.

CRYPTOGAMIA Musci.

Gen. Char. *Outer fringe* of 16 teeth, broad at the base: inner a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

Spec. Char. Stem branched from the base. Leaves ovate, concave, imbricated, obtuse, pointless. Capsule club-shaped, pendulous.

Syn. Bryum julaceum. *Schrad. Spicil.* 70. *Sm. Fl. Brit.* 1557.

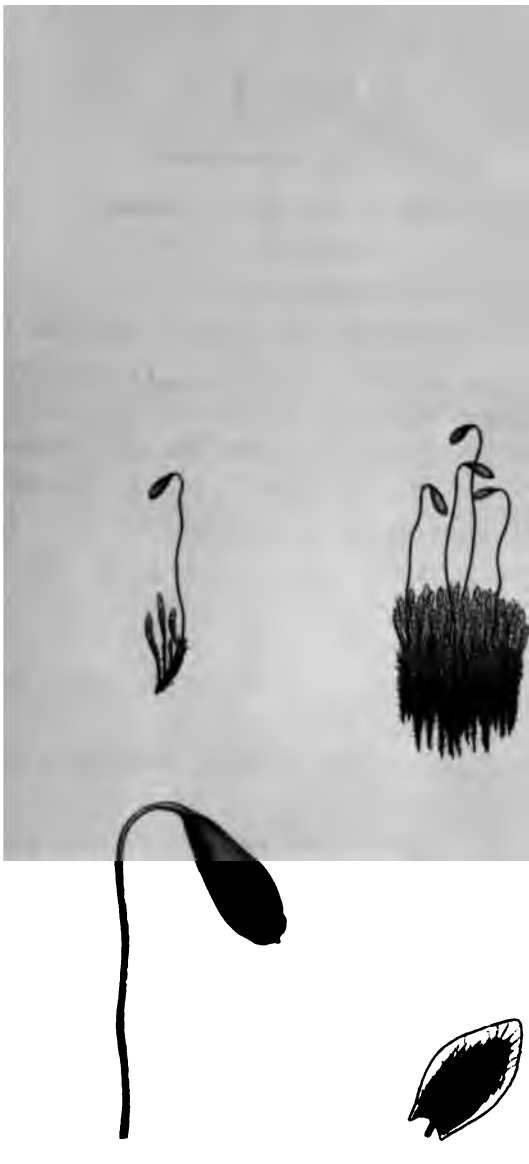
β filiforme. *Dicks. Crypt. fasc.* 4. 16.

γ argenteum. *Linn. Sp. Pl.* 1586. *Huds.* 489. *With.* 839. *Hull.* 256.

δ pendulum. surculis teretibus viridibus. *Dill. Musc.* 384. t. 50. f. 63.

ε cribrodes. capitulis reflexis, viridissimum holosericeum. *Dill. Giss.* 226. *app.* 86. *t.* 2. *f.* F.

DILLENIUS says he gathered this on the gravel walks of



[2007]

BRYUM capillare.

Greater Matted Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base; *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched from the base, tufted. Leaves obovate, hair-pointed, twisted when dry. Capsule club shaped, pendulous.

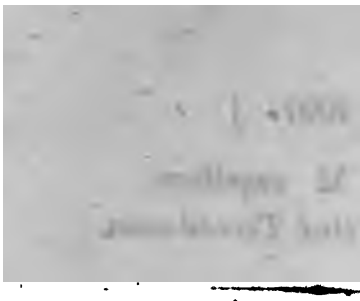
SYN. Bryum capillare. *Linn. Sp. Pl.* 1586. *Sm. Fl. Brit.* 1357. *Hedw. Sp. Musc.* 182. *Huds.* 488. *Hull.* 255. *Lightf.* 737. *Sibth.* 290. *Turn. Musc. Hib.* 120.

B. foliis latiusculis congestis, capsulis longis nutantibus. *Dill. Musc.* 398. *t.* 50. *f.* 67.

B. capitulis reflexis, foliolis latiusculis congestis. *Raii Syn.* 100.

Mnium capillare. *Linn. Fl. Suec.* 385. *With.* 805. *Relh.* 420. *Abbot.* 234.

FOUND in woods and on heathy banks, not, like *B. cæspi-*



BRYUM capillare.

Greater Matted Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base; *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched from the base, tufted. Leaves obovate, hair-pointed, twisted when dry. Capsule club shaped, pendulous.

SYN. Bryum capillare. *Linn. Sp. Pl.* 1586. *Sm. Fl. Brit.* 1357. *Hedw. Sp. Musc.* 182. *Huds.* 488. *Hull.* 255. *Lightf.* 737. *Sibth.* 290. *Turn. Musc. Hib.* 120.

B. foliis latiusculis congestis, capsulis longis nutantibus. *Dill. Musc.* 398. *t.* 50. *f.* 67.

B. capitulis reflexis, foliolis latiusculis congestis. *Raii Syn.* 100.

Mnium capillare. *Linn. Fl. Suec.* 385. *With.* 805. *Relh.* 420. *Abbot.* 234.

FOUND in woods and on heathy banks, not, like *B. cæspiticium*, *t.* 1004, on walls or roofs, nor about much-frequented

2007

April 1 1809 Published by Jas Sowerby London

109.

BRYUM annotinum.

Summer Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

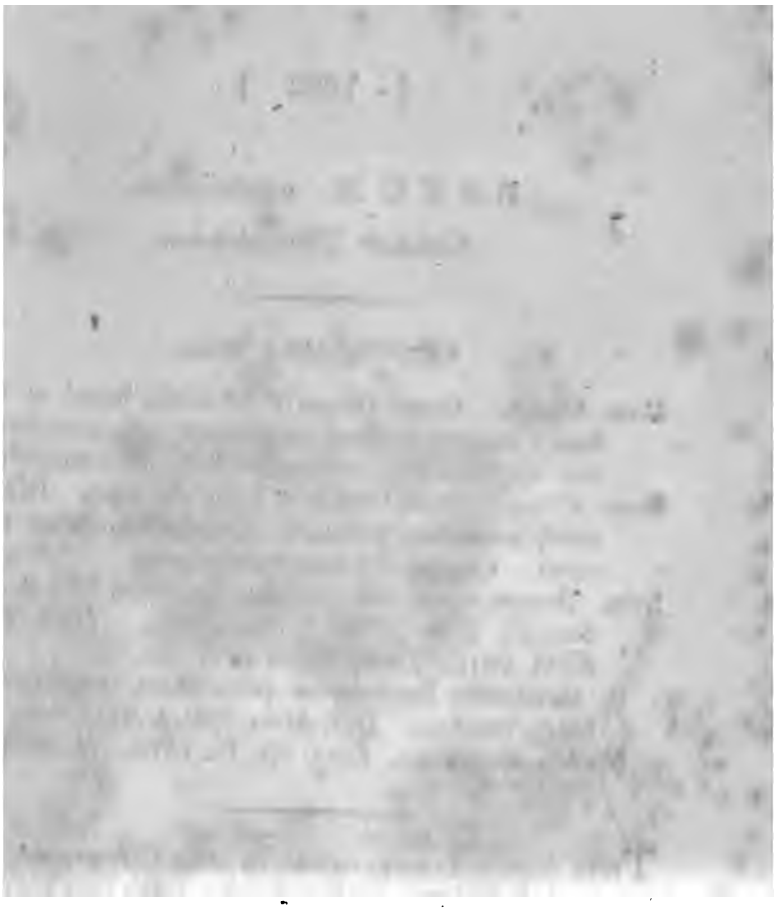
SPEC. CHAR. Stem branched from the base. Leaves ovato-lanceolate, pellucid, keeled, somewhat serrated. Capsule obovate, pendulous.

SYN. Bryum annotinum. *Hedw. Sp. Musc.* 183. *t.* 43. *Sm. Fl. Brit.* 1358. *Huds.* 490. *Hull.* 255. *Sibth.* 291. *Turn. Musc. Hib.* 123.

B. annotinum lanceolatum pellucidum, capsulis oblongis pendulis. *Dill. Musc.* 399. *t.* 50. *f.* 68.

Mnium annotinum. *Linn. Sp. Pl.* 1576. *With.* 805.

THIS moss is frequent enough on moist turfy ground, but very rarely indeed produces any capsules. We have gathered it in fruit once only, on Scarning common, Norfolk, in May 1780. The Rev. Dr. Abbot sent specimens from the thatch of a cottage near Bedford. The stellated male blossoms fre-



BRYUM annotinum.

Summer Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: inner a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched from the base. Leaves ovate-lanceolate, pellucid, keeled, somewhat serrated. Capsule obovate, pendulous.

SYN. Bryum annotinum. *Hedw. Sp. Musc.* 183. *t.* 48. *Sm. Fl. Brit.* 1358. *Huds.* 490. *Hull.* 255. *Stark.* 291. *Turn. Musc. Hib.* 123.

B. annotinum lanceolatum pellucidum, capsulis oblongis pendulis. *Dill. Musc.* 399. *t.* 50. *f.* 68.

Mnium annotinum. *Linn. Sp. Pl.* 1576. *With.* 805.

THIS moss is frequent enough on moist turfy ground, but very rarely indeed produces any capsules. We have gathered it in fruit once only, on Scarning common, Norfolk, in May 1780. The Rev. Dr. Abbot sent specimens from the thatch of a cottage near Bedford. The stellated male blossoms fre-

Mac vicar del. Published by Jas. Sowerby, London.

110.

BRYUM compactum.

Compact Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem divided at the base. Leaves lanceolate, keeled, serrated towards the point. Capsule ovate, pendulous.

SYN. Bryum compactum. *Dicks. Crypt. fasc.* 4. 15. *t.* 11. *f.* 11. *Sm. Fl. Brit.* 1359. *Turn. Musc. Hib.* 124.

ALL our knowledge of this *Bryum* was derived from Mr. Dickson, till specimens were sent to Mr. Sowerby by the Rev. Mr. Dalton, who has been uncommonly fortunate in discovering rare mosses near his residence at Copgrove, Yorkshire. He found it in a small running drain near Scriven, the seat of Sir Thomas Slingsby, Bart., and in another drain between Copgrove and Farnham. The capsules are perfected in the spring.

The roots are perennial. Stems half an inch or more in height, erect, forming a dense tuft, some of them simple, others divided at the bottom, often stripped of their leaves in the lower part, when they appear red. Leaves of a pale yellowish shining green, narrow, lanceolate, acute, keeled, serrated from the middle to the point, furnished with a strong red rib; the lowermost shorter and almost heart-shaped. Fruit-stalk terminal, solitary, scarcely an inch long, a little wavy, of a red or tawny hue. Capsule pendulous; when ripe ovate, short, brownish, with a spreading mouth so as to be almost turbinate; in an earlier state the capsule is rather pear-shaped. Lid convex, with a small point, red. Fringe red.

BRYUM compactum.

Compact Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem divided at the base. Leaves lanceolate, keeled, serrated towards the point. Capsule ovate, pendulous.

SYN. Bryum compactum. *Dicks. Crypt. fasc.* 4. 15. *t.* 11. *f.* 11. *Sm. Fl. Brit.* 1359. *Turn. Musc. Hib.* 124.

ALL our knowledge of this *Bryum* was derived from Mr. Dickson, till specimens were sent to Mr. Sowerby by the Rev. Mr. Dalton, who has been uncommonly fortunate in discovering rare mosses near his residence at Copgrove, Yorkshire. He found it in a small running drain near Scriven, the seat of Sir Thomas Slingsby, Bart., and in another drain between Copgrove and Farnham. The capsules are perfected in the spring.

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Black's Mag. Published by Sol Sowerby, London.

BRYUM attenuatum.

Slender Proliferous Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem simple, proliferous. Leaves stellate, ovate, entire, reticulated. Capsule club-shaped, somewhat cylindrical, erect.

SYN. Bryum attenuatum. *Dicks. Crypt. fasc.* 4. 8. *t.* 10. *f.* 8. *Sm. Fl. Brit.* 1360.

COLLECTED by Mr. Dickson in bogs on the mountains of Scotland. Mr. D. Turner, who has examined the fringe, assures us it is that of a *Bryum*; further we know nothing, except from a drawing made by Mr. Sowerby from an original

2433.

July 1st 1833 published by J. & J. Lindley, London.

[2271]

BRYUM hornum.

Swan's-neck Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base; *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem simple. Leaves lanceolate, bordered with fine teeth. Fruit-stalk bowed. Capsule ovate, drooping.

SYN. Bryum hornum. *Huds.* 491. *Sm. Fl. Brit.* 1360. *Hull.* 266. *Sibth.* 290. *Curt. Lond. fasc.* 1. *t.* 71. *Dicks. H. Sicc. fasc.* 4. 23. *Turn. Musc. Hib.* 128. *Winch. v.* 1. 115.

B. stellare hornum sylvarum, capsulis magnis nutantibus. *Dill. Musc.* 402. *t.* 51. *f.* 71.

B. nitidum, capitulis majoribus reflexis, calyptrâ imùm vergente, pediculis oblongis e cauliculis novis egredientibus. *Raii Syn.* 102.

Mnium hornum. *Linn. Sp. Pl.* 1576. *With.* 804. *Lightf.* 711. *Relh.* 419. *Abbot.* 233. *Ehrh. Crypt.* 3.

NOT uncommon in rather moist umbrageous woods, bearing fruit in the spring. It is one of the largest of its genus. The stems form dense, soft, elastic tufts, several inches high, furnished with close, blackish, fibrous, perennial roots. Each stem is simple, annual, whence the trivial name, from one to two inches in height, reddish, leafy. Leaves alternate, bright green, wavy when dry, pellucid, membranous, spreading, lanceolate, acute, beardless, single-ribbed, their edges and keel rather toothed than serrated. The male flowers are terminal, reddish, encompassed with large, spreading, star-like leaves, and are so conspicuous that nobody could overlook them, how much soever botanists might differ about their use. The female ones grow on a different plant. The fruitstalks are solitary, terminal, red, two inches or more in height, most curved in the upper part, so as often to imitate the graceful position of a swan's neck; under the fruit they are a little thickened. Capsule large, drooping, ovate inclining to elliptic, abrupt, turgid, thin, smooth, red brown, with a crimson mouth. Lid convex with a little point. Fringe yellowish.

Specimens of this species, in various stages of growth, were sent by Hedwig to Linnæus to demonstrate the sexes of mosses.

As it was published by J.F. Dove, July 1st 1815

BRYUM crudum.

Transparent-green Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem simple. Leaves lanceolate, acute, entire; the uppermost narrow and minutely toothed. Capsule oblong, drooping.

SYN. Bryum crudum. *Huds.* 491. *Sm. Fl. Brit.* 1361. *Hull.* 266. *Turn. Musc. Hib.* 130.

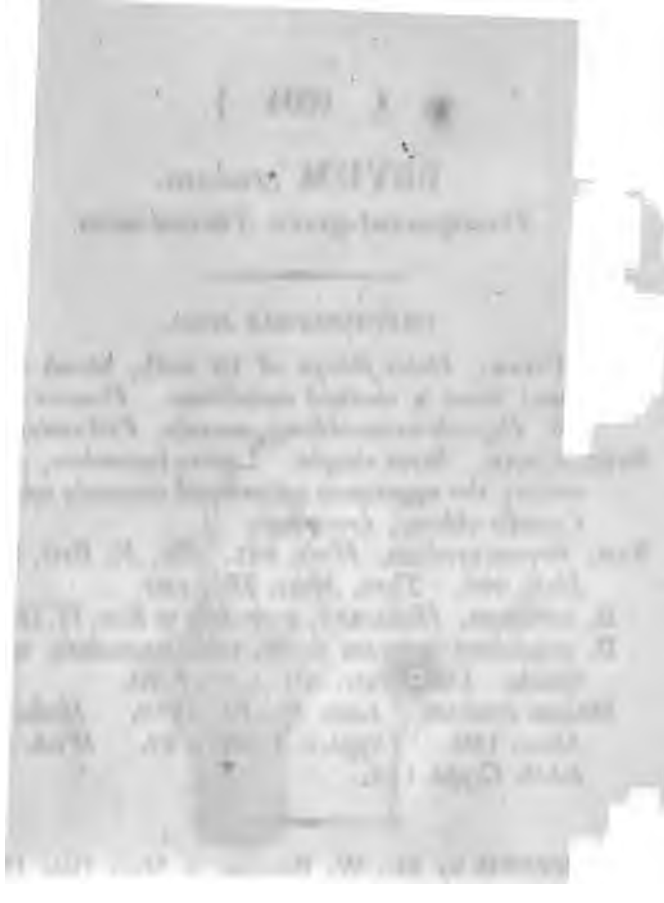
B. sericeum. *Huds.* 487, according to Rev. H. Davies.

B. pendulum hornum molle, foliis lanceolatis et gramineis. *Dill. Musc.* 401. *t.* 51. *f.* 70.

Mnium crudum. *Linn. Sp. Pl.* 1576. *Hedw. Sp. Musc.* 189. *Crypt. v.* 1. 99. *t.* 37. *With.* 807. *Ehrh. Crypt.* 152.

GATHERED by Mr. W. Brunton at Moss Dale Head, Wensley Dale, in the north of Yorkshire. It bears fruit in the summer, and is perennial.

We have compared our specimens with original ones of Dillenius, Hedwig, Ehrhart, and other writers. Much affinity is observable between this species and *B. elongatum*, though there are abundant marks of distinction, particularly in the inner fringe, which in *B. crudum* has the usual structure of the genus. The size of the whole plant is also twice as large; the leaves are much broader, and thin at the edge, the upper ones only being lengthened out into a narrow linear shape and slightly toothed; the capsules are thicker, when ripe rather oblong than ovate, with much less of that base or *apophysis* into which the cavity for the seeds does not extend. The lid is like *B. elongatum*. We conceive that these 2 species ought naturally to be placed near each other, though in the *Flora Britannica*, out of deference to the method of Hedwig, they stand far asunder. The natural distribution of all the species, as well as genera, of mosses with respect to each other, can only be perfected by degrees, when more exotic ones are observed with this particular view.



BRYUM crudum.

Transparent-green Thread-moss.

CRYPTOGAMIA Musci.

Gen. Char. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

Spec. Char. Stem simple. Leaves lanceolate, acute, entire; the uppermost narrow and minutely toothed. Capsule oblong, drooping.

Syn. Bryum crudum. *Huds.* 491. *Sm. Fl. Brit.* 1361. *Hull.* 266. *Turn. Musc. Hib.* 130.

B. sericeum. *Huds.* 487, according to Rev. H. Davies.

B. pendulum hornum molle, foliis lanceolatis et graminis. *Dill. Musc.* 401. *t.* 51. *f.* 70.

Minium crudum. *Linn. Sp. Pl.* 1576. *Hedw. Sp. Musc.* 188. *Crypt.* v. 1. 99. *t.* 37. *With.* 807. *Ehrh. Crypt.* 152.

GATHERED by Mr. W. Brunton at Moss Dale Head, Wensley Dale, in the north of Yorkshire. It bears fruit in the summer, and is perennial.

We have compared our specimens with original ones of Dillenius, Hedwig, Ehrhart, and other writers. Much affinity is observable between this species and *B. elongatum*, though there are abundant marks of distinction, particularly in the inner fringe, which in *B. crudum* has the usual structure of the genus. The size of the whole plant is also twice as large; the leaves are much broader, and thin at the edge, the upper ones only being lengthened out into a narrow linear shape and slightly toothed; the capsules are thicker, when ripe rather oblong than ovate, with much less of that base or *apophysis* into which the cavity for the seeds does not extend. The lid is like *B. elongatum*. We conceive that these 2 species ought naturally to be placed near each other, though in the *Flora Britannica*, out of deference to the method of Hedwig, they stand far asunder. The natural distribution of all the species, as well as genera, of mosses with respect to each other, can only be perfected by degrees, when more exotic ones are observed with this particular view.

June 1 1806 Published by Jas Sowerby London.

BRYUM marginatum.

Thick-edged Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stem simple. Leaves lanceolate, acute, finely toothed; thickened at the margin. Capsule ovate. Lid conical.

SYN. Bryum marginatum. *Dicks. Crypt. fasc.* 2. 9. *t.* 5. *f.* 1. *Sm. Fl. Brit.* 1362. *With.* 841. *Hull.* 267. *Turn. Musc. Hib.* 129.
Mnium crudum. *Lightf.* 712.

THE Rev. Dr. Burgess, so often quoted in the *Fl. Scotica*, first found this moss in woods and moist shady places in Dumfriesshire. From him I obtained corresponding specimens with those which he gave Mr. Lightfoot, who mentions the plant as *Mnium crudum*, very incautiously translating from Dillenius a description extremely foreign to the purpose. Mr. Dickson found the same moss in Scotland, and first named it properly. Our specimens were found, and determined, at Copgrove, Yorkshire, by our very obliging correspondent the Rev. James Dalton.

It is perennial, bearing fruit in April or May. The stems are simple, red, leafy, upright, about an inch high. Leaves elliptic-lanceolate, acute, wavy, finely toothed, especially in the upper part, remarkable for a thick cartilaginous margin, which, as well as the rib, is often red. Fruit-stalk solitary, erect, an inch long, flesh-coloured. Capsule pendulous, ovate. Lid conical at the base, with a taper point. Veil awl-shaped, brown or reddish, curved generally upwards as it grows.

HYPNUM marginatum.

Thick-edged Thread-moss.

Fungi Tab. Published by Jas. Sowerby, London.

BRYUM interruptum.

Interrupted Thread-moss.

CRYPTOGAMIA Musci.

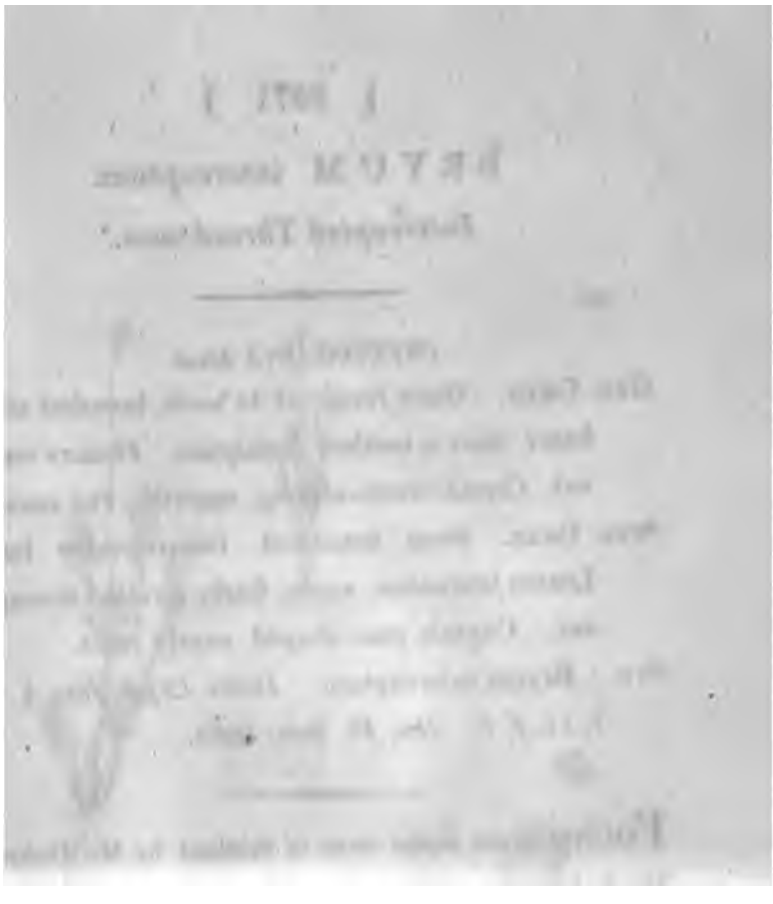
GEN. CHAR. *Outer fringe* of 16 teeth, broadest at the base; *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched, interruptedly leafy. Leaves lanceolate, acute, finely serrated throughout. Capsule pear-shaped, nearly erect.

SYN. Bryum interruptum. *Dicks. Crypt. fasc.* 4. 13. *t.* 11. *f.* 6. *Sm. Fl. Brit.* 1363.

FOUND on the alpine rocks of Scotland by Mr. Dickson, who bestowed on us a specimen, here delineated, from Ben Nevis. We have borrowed from the original sketch, made for his plate, what more decidedly shows the interrupted foliation of this species.

The perennial stems constitute dense tufts, an inch or two high, and are determinately branched, interruptedly leafy, red in the naked parts. Leaves clustered, bright green or yellowish, shining, reticulated, lanceolate, acute, with a mid-rib, equally and finely serrated; the lower ones more distant, small and short. Fruitstalk erect, red, hardly an inch high, terminal in its origin, though surmounted by branches. Capsule nearly erect, brown, pear-shaped, with a rather wide mouth, obscurely reticulated. Lid hemispherical, with a blunt point.



116.

BRYUM nigricans.

Dark-green Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched at the base. Leaves lanceolate, straight, serrated about the point. Capsule turbinate, pendulous.

SYN. Bryum nigricans. *Dicks. Crypt. fasc.* 4. 15. *t.* 11. *f.* 10. *Sm. Fl. Brit.* 1363.

NO one but Mr. Dickson seems to have known this moss, till from his Scottish specimens, and the account published by himself, a description of it appeared in the *Flora Britannica*. Our liberal friend Mr. Winch has lately communicated it from Northumberland. It bears fruit in July and is perennial, growing on turfy bogs.

The stems form tufts an inch or two in height, and are more or less branched. Leaves of a dull darkish green, closely imbricated, straight, lanceolate, broadish, acute, keeled; dilated and entire at the base; serrated near the point. Fruit-stalk terminal, solitary, various in length, wavy, curved at the top, red. Capsule pendulous, turbinate; when ripe of a rusty brown, with a wide mouth. Lid convex, with a little blunt point. Fringe yellowish.

BRYUM nigricans.

Dark-green Thread-moss.

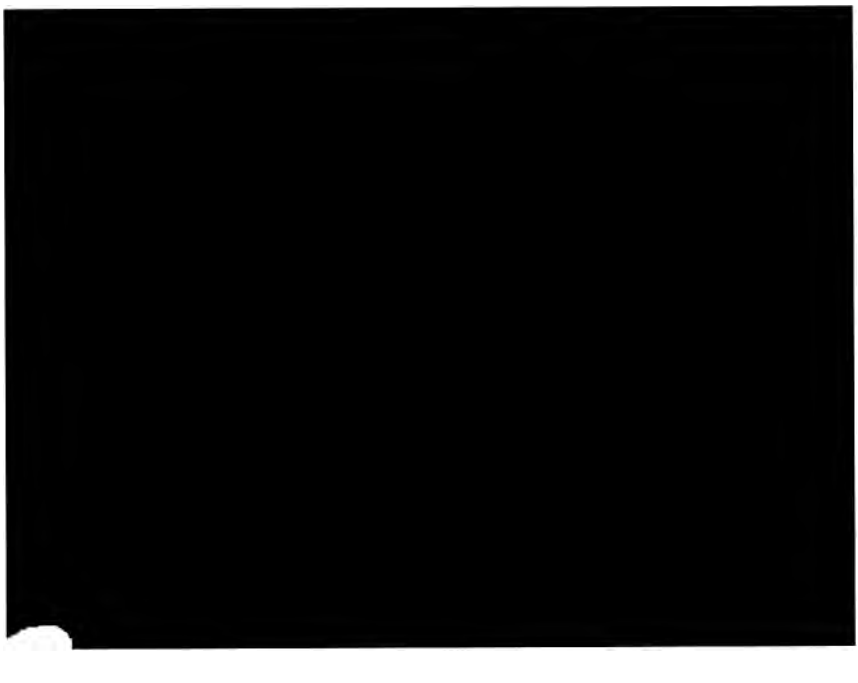
CRYPTOGAMIA Musci.

Gen. Char. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovato-oblong, smooth. *Veil* smooth.

Spec. Char. Stem branched at the base. Leaves lanceolate, straight, serrated about the point. Capsule inclinate, pendulous.

Syn. Bryum nigricans. *Dicks. Crypt. fasc.* 4. 15. *t.* 11. *f.* 10. Sm. *Fl. Brit.* 1963.

No one but Mr. Dickson seems to have known this moss, till from his Scottish specimens, and the account published by himself, a description of it appeared in the



Published by Jas Sowerby, London

BRYUM cubitale.

Elbow-shaped Thread-moss.

CRYPTOGAMIA Musci.

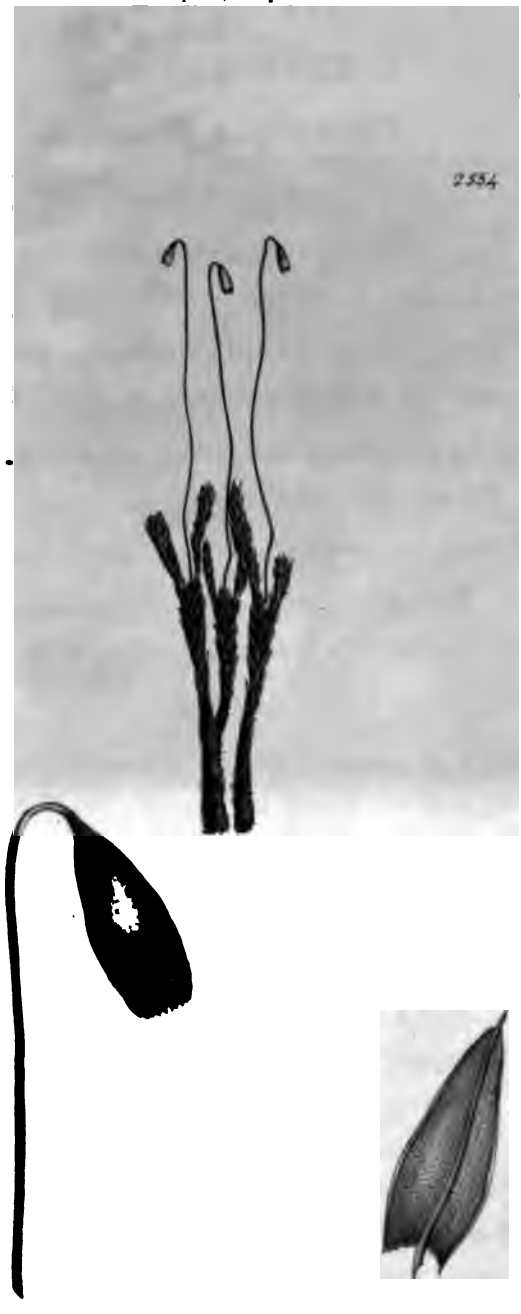
GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base; *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem ascending, somewhat branched. Leaves lanceolate, entire, decurrent. Fruitstalk bent. Capsule clubshaped, pendulous.

SYN. Bryum cubitale. *Dicks. Crypt. fasc.* 2. 9. *t.* 5. *f.* 2. *Sm. Fl. Brit.* 1364. *With.* 840. *Hull.* 267.

THIS large species of *Bryum*, distinguished by a singular bending near the base of its fruitstalks, was gathered by Mr. Dickson on moist banks near Aberfeldy in North Britain. We know of no other botanist who has observed it.

The habit approaches that of *bimum*, *t.* 1518, the stems being two or three inches high, clothed with rusty down, leafy, and irregularly branched. Leaves spreading, bright green, pellucid, reticulated, with a strong red mid-rib, and a thickened entire margin of the same hue. The apex is crowned with a minute point; the base is slightly decurrent. Fruitstalks solitary at the top of last-year's shoots, three or four inches long, of a shining tawny brown; bent near the bottom. Capsule pendulous, club-shaped, tapering at the base, pale brown, smooth, red at the margin, with a light-yellow fringe.


2554

[2272]

BRYUM ventricosum.

Swelling Bog Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem determinately branched; the branches ascending. Leaves alternate, ovato-lanceolate, serrated near the point. Capsule swelling, pendulous.

SYN. Bryum ventricosum. *Dicks. Crypt. fasc.* 1. 4. *Sm. Fl. Brit.* 1365. *Relh.* 427. *Turn. Musc. Hib.* 126. *Winch. v.* 1. 115.

B. triquetrum. *Huds.* 490, *α*. *Hull.* 256.

B. annotinum palustre, capsulis ventricosis pendulis. *Dill. Musc.* 404. *t.* 51. *f.* 72.

B. nitidum, foliis serpilli angustioribus, majus. *Dill. in Raii Syn.* 102.

Mnium pseudo-triquetrum. *Hedw. Sp. Musc.* 190. *Crypt. v.* 3. 19. *t.* 7. *With.* 108.

M. triquetrum. *Abbot.* 235. *Lightf.* 715.

GATHERED on the sandy brink of the river at Meavis bank near Edinburgh, bearing fruit in April. It prefers marshy or boggy places, especially where there is a mixture of sand or gravel, not mud. The long perennial rusty roots grow in close tufts. The stems are bright red, and have two or more branches springing from beneath the fructifying spot, which ascend in a slightly spreading posture. Leaves pale green, lax, rather alternate than three-ranked, moderately spreading, lanceolate, or in some measure ovate, acute, single-ribbed, serrated near the top, twisted when dry. Male and female organs often in the same flower, according to Hedwig. Fruitstalk from the top of last-year's branch, an inch and half or two inches high, nearly upright, red below, yellowish above. Capsule pendulous, ovate, short, tumid near the base, a little constricted under the mouth. Hedwig draws it, as he himself describes it, contracted at the base after the seeds are discharged. Lid convex, with a rather prominent point. Fringe yellow.

BRYUM bimum.

Long-stalked Bog Thread-moss.

CRYPTOGAMIA Musci.

Gen. Char. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

Spec. Char. Stem branched. Leaves alternate, linear-lanceolate, slightly serrated near the point. Capsule nodding, elongated, pendulous.

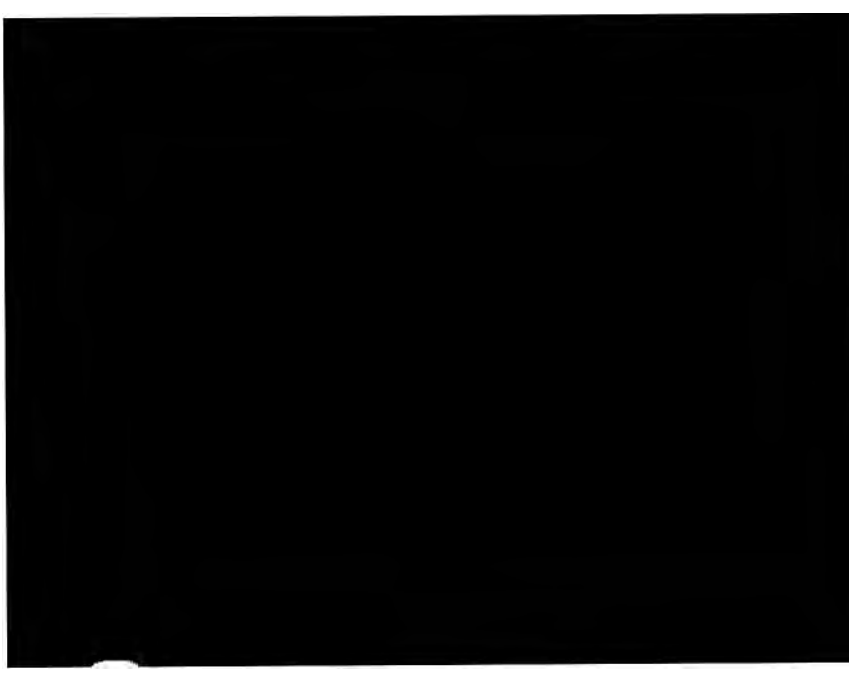
Syn. Bryum bimum. *Scivert. Lips.* 83. *Sm. Fl. Brit.* 1313. *Turn. Musc. Hib.* 127.

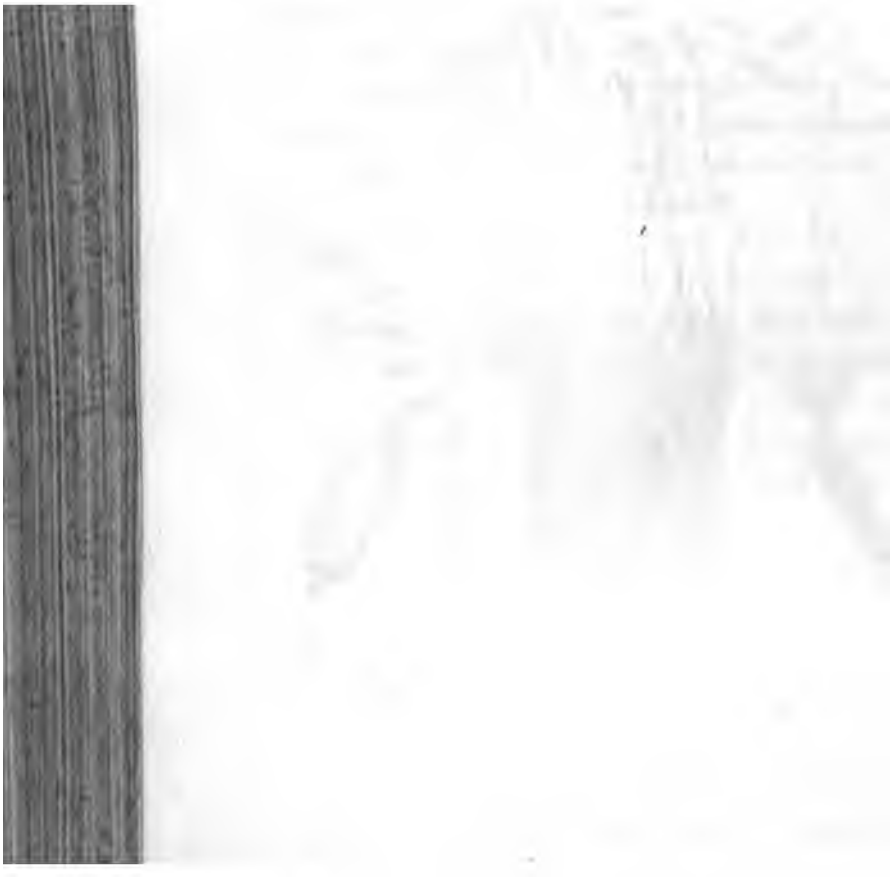
β. majus. *Huds.* 490. *Hull.* 256.

β. lanceolatum bimum, setis et capsulis longis pendulis. *Dill. Musc.* 405. t. 51. *f.* 73.

β. minus, foliis ovatis pellucidis angustis, capitulis minoribus nutantibus, pedalis pediculis e surculis axillaribus ejaculatibus. *Dill. in Raii Syn.* 102.

Minium pseudo-triquetrum, var. 2. *With.* 808.





BRYUM turbinatum.

Pear-shaped Bog Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched. Leaves ovate, bearded, entire. Capsule pear-shaped, pendulous.

SYN. Bryum turbinatum. *Swartz. Musc. Suec.* 49. *Sm. Fl. Brit.* 1366.

B. triquetrum γ. *Huds.* 491.

B. palustre complicatum rubens, capsulis turbinatis pendulis. *Dill. Musc.* 406. *t.* 51. *f.* 74.

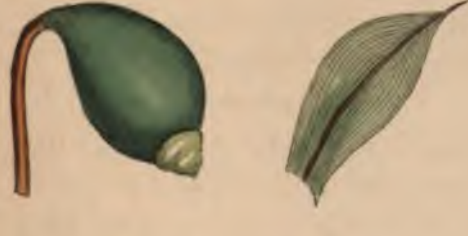
B. nitidum rubens, capitulis reflexis, foliis angustis pellucidis, cauliculis proliferis. *Dill. in Raii Syn.* 102.

Mnium turbinatum. *Hedw. Sp. Musc.* 191. *Crypt. v.* 3. 22. *t.* 8.

M. nutans. *With.* 803. *Hull.* 255.

THIS seems to be a rare species. Dillenius mentions Shooter's hill and Wales as its stations. The Rev. Mr. Dalton finds it on Scotton banks near Knaresborough, and no where else. It bears fruit in spring and summer, and loves a wet sandy soil.

Stems about an inch high, perennial, branching, reddish. Leaves bright green, pellucid, reticulated, alternate, ovate, entire, with a strong rib ending in a small bristly point. Fruitstalk dark red, wavy, about an inch high. Capsule pendulous, pear-shaped, of a light shining brown when ripe. Lid convex, with a little point which is only perceptible in an early state. Fringe yellowish with a rusty hue.



121.

[2434]

BRYUM stellare.

Starry-leaved Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broad at the base: *inner* a toothed membrane. *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem branched. Leaves ovate, pointed, reticulated with roundish interstices; the upper ones serrated and stellate. Capsule oblong, pendulous.

SYN. Bryum stellare. *Roth. Germ. v.* 3. 240. *Sm. Fl. Brit.* 1367.

B. proliferum, var. 2. *Hull.* 266.

B. serpyllifolium ε. *Huds.* 492.

B. stellare roseum pendulum minus, capsulis et setis longioribus. *Dill. Musc.* 412. *t.* 52. *f.* 78.

B. roseum minus, foliis subrotundis. *Raii Syn.* 92.

Mnium stellare. *Hedw. Sp. Musc.* 191. *t.* 45. *f.* 1—4.

M. proliferum, var. 2. *With.* 807.

FOUND occasionally in woods, and moist heathy spots. The stem is an inch or two high, branched in a determinate manner, leafy and perennial, with many rusty radicles. Leaves light green, ovate or obovate with a short point, and a strong red rib. Under a magnifier they are found beautifully reticulated with roundish interstices. The lower ones are entire; the uppermost are crowded and stellate, and their tips are more or less serrated. Fruitstalk solitary, two inches high, smooth, rather stiff, not quite straight. Capsule pendulous, cylindrical inclining to obovate. Lid hemispherical with a small point.

[1474]

BRYUM cuspidatum.

Pointed-leaved Thyme Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stem simple: when barren procumbent and somewhat branched. Leaves ovate, serrated. Capsule ovate. Lid hemisphærical.

SYN. Bryum cuspidatum. *Swartz. Musc. Suec.* 51. *Sm. Fl. Brit.* 1368. *Hull.* 266. *Sibth.* 291.
B. serpyllifolium γ. *Huds.* 492.
B. pendulum, foliis variis pellucidis, capsulis ovatis. *Dill. Musc.* 413. *t.* 53. *f.* 79.
Mnium cuspidatum. *Hedw. Sp. Musc.* 192. *t.* 45. *f.* 5—8. *With.* 804. *Relh.* 420. *Abbot.* 234.
M. serpyllifolium β. *Linn. Sp. Pl.* 1577.

THIS species is common in shady moist groves, and is not very unfrequently found with capsules in the spring. We received it from the Rev. Mr. Dalton.

Its stems are of two kinds. The barren ones are procumbent and creeping, 2 or 3 inches, or more, in length, sometimes branched, always leafy. The flowering stems are upright, simple, only an inch high. The leaves are of a fine green, transparent, very minutely reticulated, of an ovate form with a sharp point, a little waved, and sharply serrated. Nerve strong, palish. Fruit-stalk solitary, erect, rose-coloured, a little zigzag. Capsule pendulous, ovate, rather short and broad when ripe, at which period it becomes yellow or tawny, with a blush on one side, and a red mouth. Lid convex, blunt. Fringe yellowish.

June 1 1804 Published by J[illegible] Sowerby London

BRYUM punctatum.

Dotted Thread-moſs.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Fringe* double: *outer* of 16 teeth, broad at their baſe: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Leaves obovate, entire, waved, dotted. Capſules elliptical, pendulous. Lid with a taper point.

SYN. Bryum punctatum. *Hull.* 266. *Sibth.* 291.

B. ſerpyllifolium, punctatum. *Hudſ.* 492.

B. pendulum, ſerpilli folio rotundiore pellucido, capſulis ovatis. *Dill. Muſc.* 416. *t.* 53. *f.* 81.

B. nitidum, ſerpilli rotundis et latioribus foliis pellucidis. *Raii Syn.* 103.

Mnium punctatum. *With.* 805. *Relh.* 420. *Abbot.* 234 *Hedw. Sp. Muſc.* 193.

M. ſerpyllifolium, punctatum. *Linn. Sp. Pl.* 1577.

A NATIVE of wet ſhady ſpots, for ſpecimens of which from Tunbridge we are obliged to Mr. T. F. Forſter. It is perennial, ripening its fruit during the winter and early ſpring; but neither the fruit, nor indeed the moſs itſelf, is of very frequent occurrence.

The root conſiſts of denſe brown fibres. Stems generally ſimple, reddiſh, leafy. Leaves obovate, broad, more or leſs pointed, waved, entire, with a thick cartilaginous edge; their ſubſtance thin and pellucid, pale-green, beautifully dotted or reticulated like the leaves of a *Splachnum*, with a central rib. Flowers terminal, dioecious. The male flat, ſurrounded with a roſe of larger leaves. Capſules elliptical, pendulous, on longiſh, red, upright, moſtly ſolitary, ſtalks. Lid with a taper point, not half ſo long as the capſule.

Linnæus has moſt unwarrantably combined under his *Mnium ſerpyllifolium* many ſpecies as diſtinct from each other as they are all remarkable for elegance. The preſent is known at once by its broad dotted leaves.

July 1 1803 Published by Jas Sowerby, London

BRYUM rostratum.

Long-beaked Thyme Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stem simple. Leaves obovato-spatulate, minutely serrated. Capsule ovate. Lid awl-shaped.

SYN. Bryum rostratum. *Schreb. Spicil.* 72. *Sm. Fl. Brit.* 1368.

B. serpyllifolium β. *Huds.* 492.

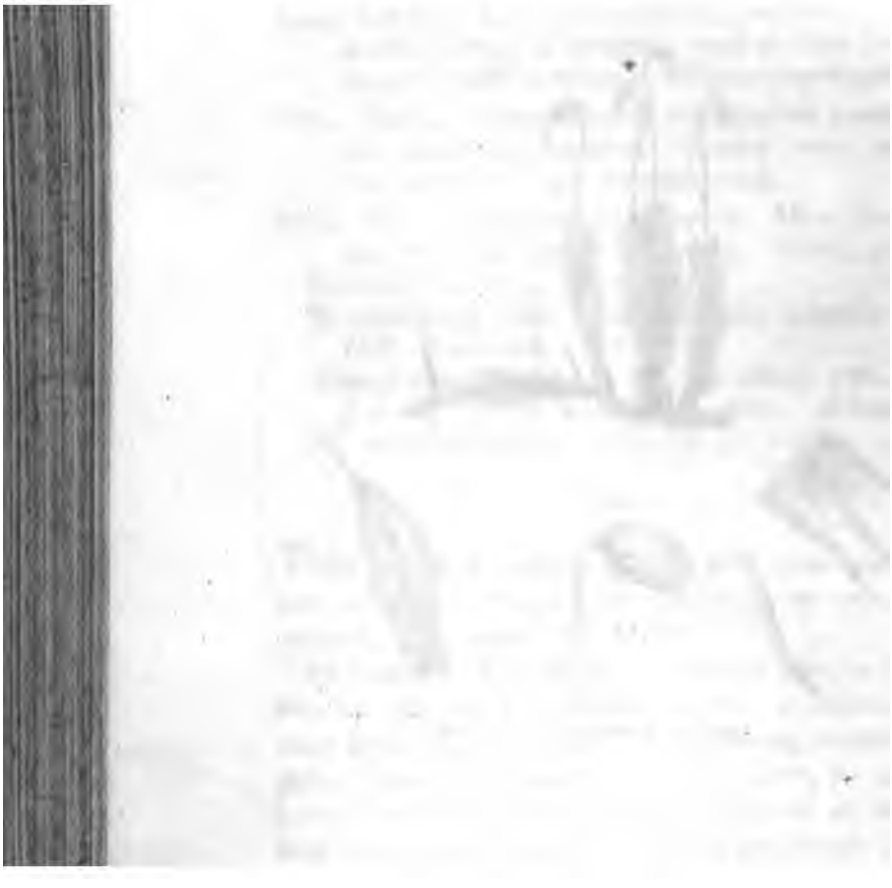
B. punctatum, var. 2. *Hull.* 266.

B. pendulum, serpilli folio longiore pellucido, capsulis oblongis cuspidatis. *Dill. Musc.* 416. *t.* 53. *f.* 80. *Hort. Dill.*

Mnium punctatum, var. 2. *With.* 806.

FOR this, which is much rarer and less known than the last,

Pubd 1 Mar 1805 Published by Jas Sowerby Londn



[2395]

BRYUM roseum.

Rosaceous Thyme Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 16 teeth, broadest at the base; *inner* a toothed membrane, *Flowers* terminal. *Capsule* ovate-oblong, smooth. *Veil* smooth.

SPEC. CHAR. Stem somewhat proliferous. Leaves crowded, stellate, ovate, acute, minutely dotted; finely serrated towards the summit. Lid conical.

SYN. Bryum roseum. *Schreb. Lips.* 84. *Swartz. Musc. Suec.* 51. *Sm. Fl. Brit.* 1370. *Turn. Musc. Hib.* 132.

B. serpyllifolium δ. *Huds.* 492.

B. proliferum. *Sibth.* 292.

B. stellare roseum majus, capsulis ovatis pendulis. *Dill. Musc.* 411. *t.* 52. *f.* 77.

B. roseum majus, foliis oblongis. *Rait Syn.* 92.

Mnium roseum. *Hedw. Sp. Musc.* 194.

M. proliferum. *With.* 806. *Abbot.* 235.

M. serpyllifolium γ. *Linn. Sp. Pl.* 1578. *Hull.* 250.

ALTHOUGH this species of *Bryum* may be occasionally met with in the moist parts of woods and heaths, the capsules are so exceedingly rare, that Dillenius appears to have procured them but once from his friend L. Brown, who found them at Christmas-time, near Bishop's-Castle. We are therefore happy to profit by Swedish specimens of Dr. Swartz.

The stems are simple, erect, an inch or two high, perennial, brown, bearing many small scattered scales, and at the top a starry tuft of numerous, large, broad, pointed, finely dotted leaves, whose upper part is finely serrated, and their entire base somewhat decurrent. The fruitstalks grow, solitary or in pairs, from the centre among the leaves, and are about two inches high. Capsule inclining, ovate, smooth, red brown. Lid, according to Dillenius, convex, but short. The top of each stem often throws up a vertical shoot, bearing leaves and fruit the next year. The barren stems described in Fl. Brit. prove to belong to a different plant.

Hooker, Icones, published by Longman & Co.

1226.

BRYUM ligulatum.

Long-leaved Thyme Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base; *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stems simple, at length branched at the summit. Leaves oblong, undulated, serrated. Fruit-stalks clustered.

SYN. Bryum ligulatum. *Schreb. Lips.* 84. *Sm. Fl. Brit.* 1371.

B. undulatum. *Sibth.* 292. *Turn. Musc. Hib.* 133.

B. dendroides polycephalon, phyllitidis folio undulato pellucido, capsulis ovatis pendulis. *Dill. Musc.* 410. *t.* 52. *f.* 76.

B. nitidum, foliis oblongis undatis, capitulis cernuis, arbusculam referens. *Raii Syn.* 103.

Mnium undulatum. *Hedw. Sp. Musc.* 195. *With.* 806. *Hull.* 250. *Relh.* 420. *Abbot.* 235.

M. serpyllifolium δ. *Sp. Pl.* 1578.

THIS very elegant *Bryum* is of frequent occurrence in damp

BRYUM ligulatum.

Long-leaved Thyme Thread-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate-oblong, smooth. *Fringe* double: *outer* of 16 teeth, broad at their base: *inner* a toothed membrane. *Flowers* terminal.

SPEC. CHAR. Stems simple, at length branched at the summit. Leaves oblong, undulated, serrated. Fruit-stalks clustered.

SYN. Bryum ligulatum. *Schreb. Lips.* 84. *Sm. Fl. Brit.* 1371.

B. undulatum. *Sibth.* 292. *Turn. Musc. Hib.* 133.

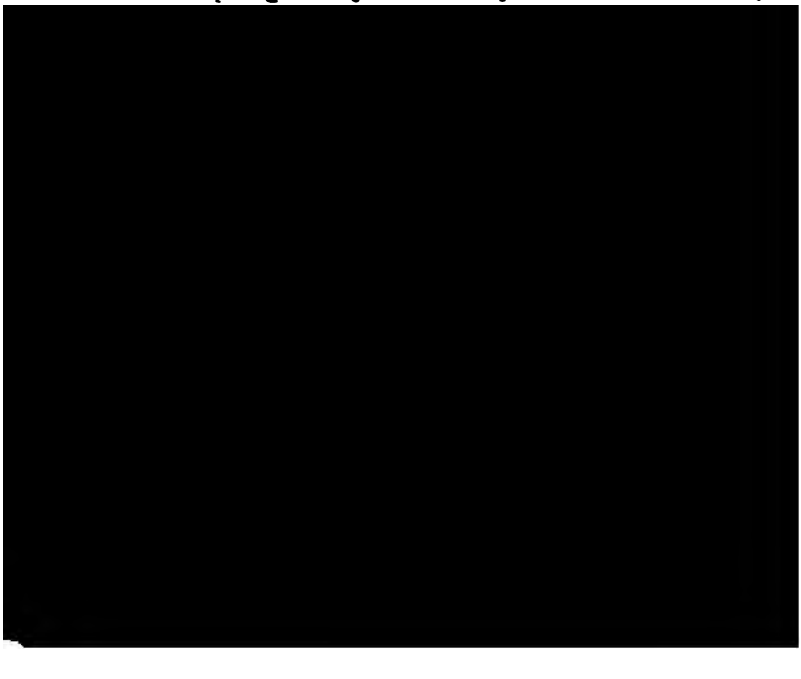
B. dendroides polycephalon, phyllitidis folio undulato pellucido, capsulis ovatis pendulis. *Dill. Musc.* 410. t. 52. f. 76.

B. nitidum, foliis oblongis undatis, capitulis cernuis, arbusculam referens. *Raii Syn.* 103.

Mnium undulatum. *Hedw. Sp. Musc.* 195. *With.* 806. *Hull.* 250. *Relh.* 420. *Abbot.* 235.

M. serpyllifolium β. *Sp. Pl.* 1578.

THIS very elegant *Bryum* is of frequent occurrence in damp



Vol. I. 1805. Published by the Linnean Society, London.

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POLYTRICHUM commune.

Common Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Stem simple. Leaves linear-lanceolate, finely serrated, acute. Capsule erect, quadrangular, standing on a roundish pedestal.

SYN. Polytrichum commune. *Linn. Sp. Pl.* 1573. *Hedw. Sp. Musc.* 88. *Menz. Tr. of Linn. Soc. v.* 4. 74. *Huds.* 469. *With.* 795. *Hull.* 247. *Relh.* 415. *Sibth.* 305. *Abbot.* 232. *Dicks. H. Sicc. fasc.* 17. 19?

P. quadrangulare vulgare, Juccæ foliis serratis. *Dill. Musc.* 420. *t.* 54. *f.* 1.

P. vulgare et majus, capsulâ quadrangulari. *Raii Syn.* 90.

THIS, the most magnificent of all our Mosses properly so

POLYTRICHUM commune.

Common Hair-moss.

CRYPTOGAMIA *Musci.*

Gen. Char. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a fine undivided membrane. *Veil* generally double: the *outer* hairy.

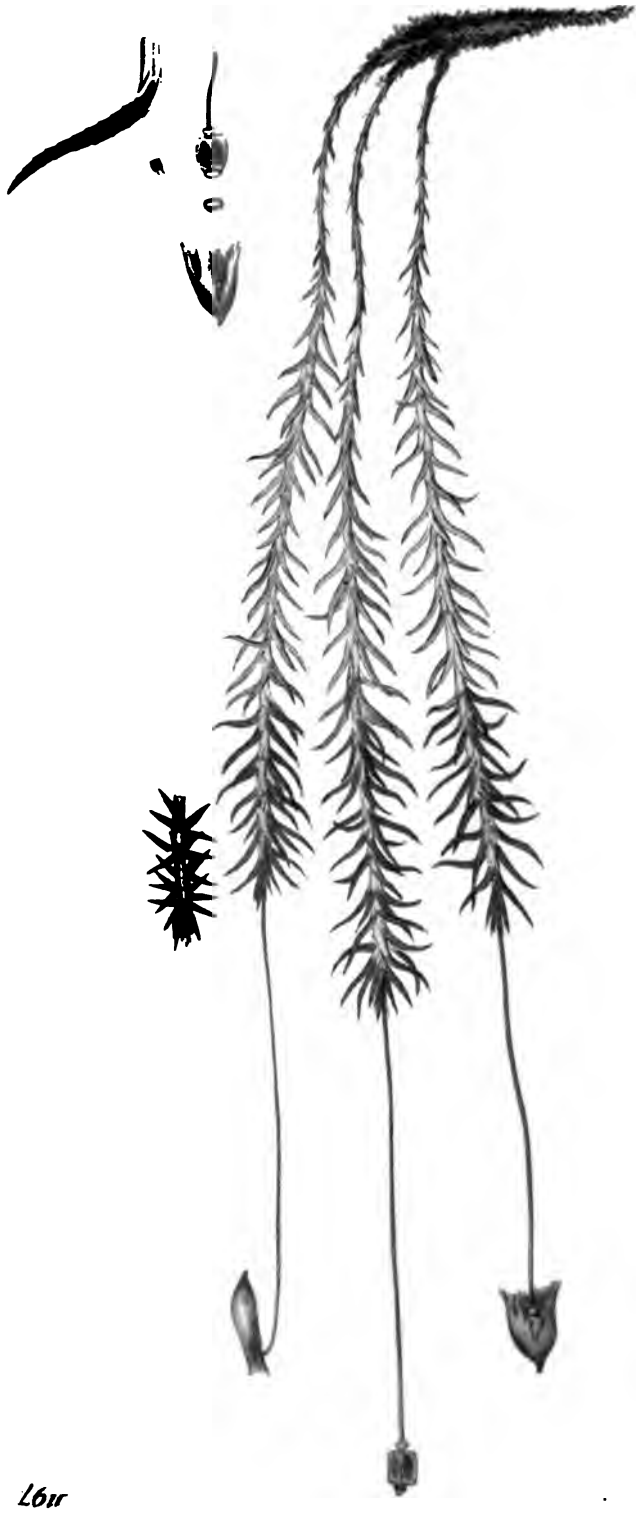
Spec. Char. Stem simple. Leaves linear-lanceolate, finely serrated, acute. Capsule erect, quadrangular, standing on a roundish pedestal.

Syn. Polytrichum commune. *Linn. Sp. Pl.* 1573. *Engl. Bot. Muscor.* 88. *Mem. Tr. of Linn. Soc.* v. 4. 74. *Huds.* 468. *With.* 795. *Hull.* 247. *Relh.* 415. *Smith.* 805. *Abbot.* 232. *Dicks. H. Sicc. fasc.* 17. 19?

P. quadrangulare vulgare, Juncæ foliis serratis. *Dill. Muscor.* 430. t. 54. f. 1.

P. vulgare e majus, capsuli quadrangulari. *Raii Syn.* 80.

THIS, the most magnificent of all our Mosses properly so



L6ir

POLYTRICHUM attenuatum.

Slender Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Stem simple. Leaves linear-lanceolate, spreading, serrated, acute. Capsule quadrangular, drooping, contracted at the base, without a pedestal.

SYN. Polytrichum attenuatum. *Menz. Tr. of Linn. Soc.* v. 4. 72. *t.* 6. *f.* 2.

P. formosum. *Hedw. Sp. Musc.* 92. *t.* 19. *f.* 1, a.

OBSERVED by Mr. Sowerby in April 1800, on Sydenham Common, Kent, for the first time, we believe, in Britain.

This elegant species has apparently been long overlooked as not different from *P. commune*, for it appears not to be very

Published by Jas Swarbrick, London

129.

[1827]

POLYTRICHUM gracile.

Long-stalked Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Stem simple. Leaves linear-lanceolate, somewhat spreading, serrated. Capsule inclining, ovate, quadrangular, contracted at the base, without a pedestal. Fringe of thirty-two teeth.

SYN. Polytrichum gracile. *Menz. Tr. of Linn. Soc. v.* 4. 73. *t.* 6. *f.* 3. *Sm. Fl. Brit.* 1374. *Hull.* 247. *Turn. Musc. Hib.* 85.

P. longisetum. *Swartz. Musc. Suec.* 76 *and* 103. *t.* 8. *f.* 16.

SENT from Ireland by Mr. Templeton, who finds it on both mountain and lowland bogs, bearing fruit in the middle of

POLYTRICHUM gracile.

Long-stalked Hair-moss.

CRYPTOGAMIA *Musci.*

Gen. Char. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a fine undivided membrane. *Veil* generally double: the *inner* hairy.

Spec. Char. Stem simple. Leaves linear-lanceolate, somewhat spreading, serrated. Capsule inclining, four-cornered, quadrangular, contracted at the base, without a peristome. Fringe of thirty-two teeth.

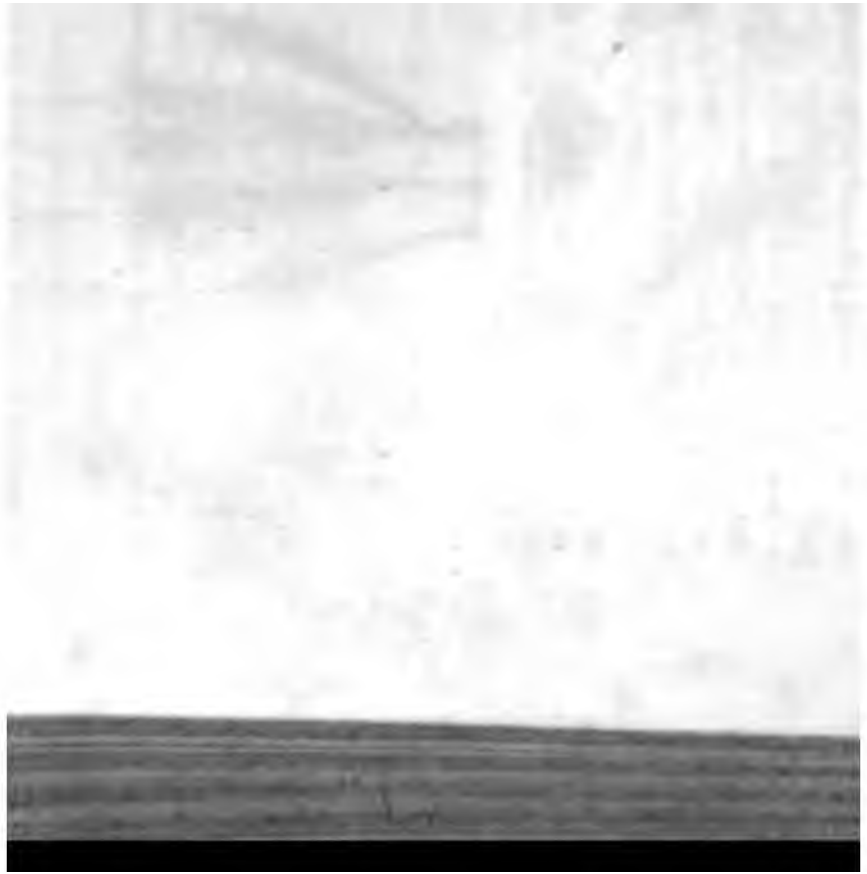
Syn. Polytrichum gracile. Mosc. *Tr. of Linn. Soc.* v. 4. 75. t. 6. f. 8. Sm. *Fl. Brit.* 1374. *Hull.* 247. *Turn. Musc. Hib.* 55.

P. longisetum. Swartz. *Musc. Suec.* 76 *and* 103. *t.* 8. *f.* 16.

SENT from Ireland by Mr. Templeton, who finds it on both mountain and lowland bogs, bearing fruit in the middle of

1827

Dec 1.1827. Published by Jas Sowerby London



130

[1199]

POLYTRICHUM piliferum.

Bristle-leaved Hair-moss.

CRYPTOGAMIA Musci.

Gen. Char. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a fine undivided membrane. *Veil* generally double: the *outer* hairy.

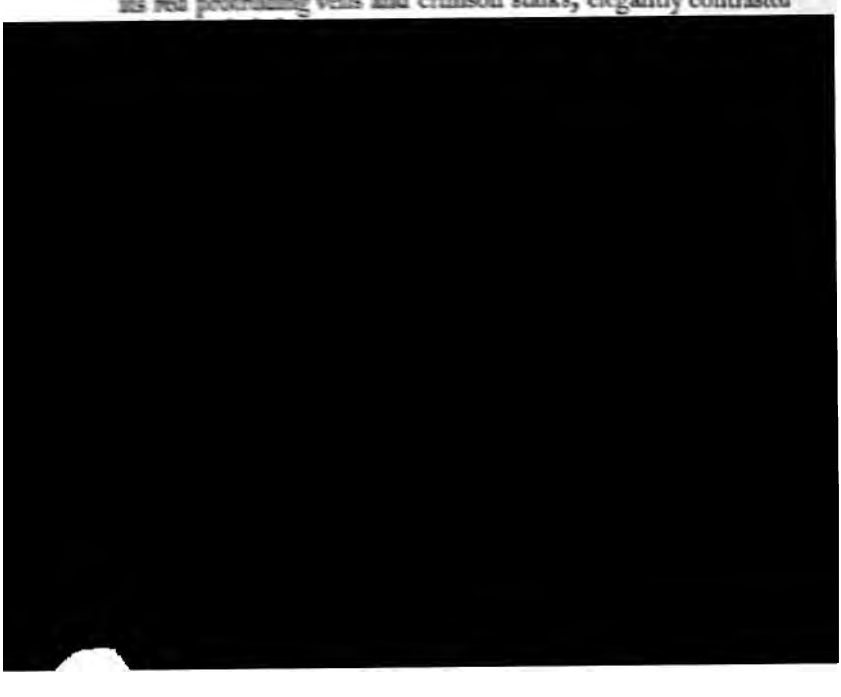
Spec. Char. Leaves lanceolate, rigid, entire, tipped with a white hair. Capsule quadrangular, on a depressed pedestal.

Syn. Polytrichum piliferum. *Schreb. Fl. Lips.* 74. *Mart. Trans. of Linn. Soc. v.* 4. 75. *Hedw. Sp. Musc.* 80. *Hull.* 247. *Sibth.* 906. *Ehrh. Crypt.* 92.

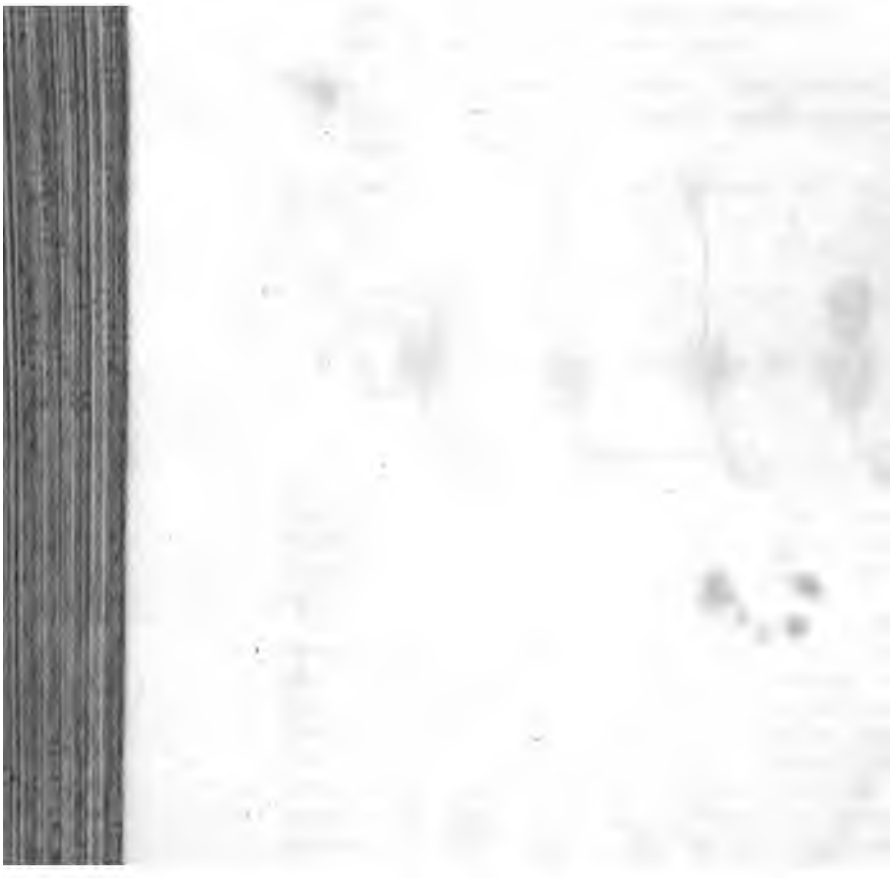
P. commune, γ. *Linn. Sp. Pl.* 1573. *Huds.* 470. *With.* 796.

P. quadrangulare minus, Juniperi foliis pilosis. *Dill. Musc.* 426. *t.* 54. *f.* 3.

COMMON on dry mountainous sandy heaths and open places, which are enlivened in the winter and early spring by its red protruding veils and crimson stalks, elegantly contrasted



Jan 1 1825 Published by Baldwin Cradock & Joy



131.

[1200]

POLYTRICHUM juniperinum.

Juniper-leaved Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: inner a flat undivided membrane. *Veil* generally double: the *outer* hairy.

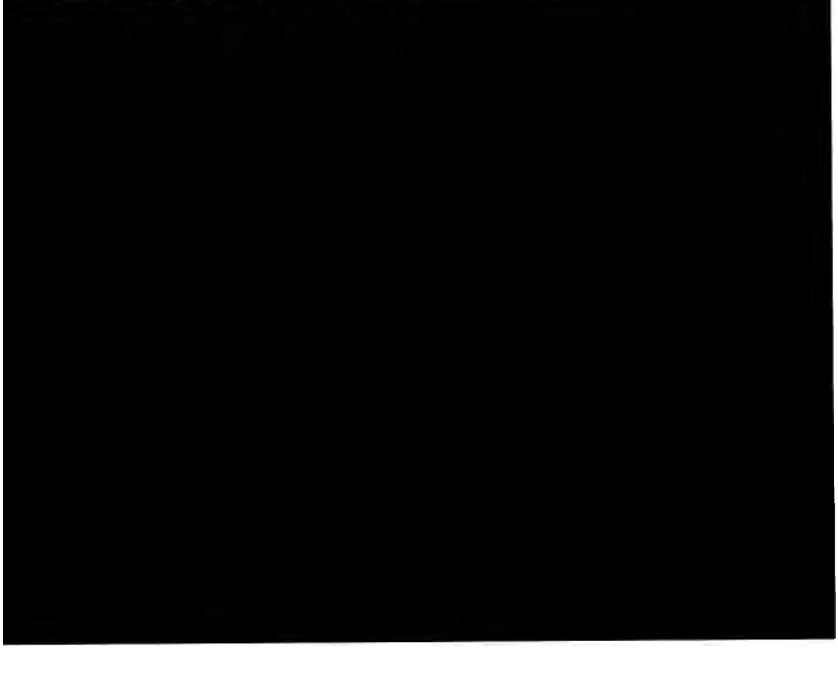
SPEC. CHAR. Leaves linear-lanceolate, pointed, entire; their margins inflexed. Capsule quadrangular, on a flat pedestal.

SYN. Polytrichum juniperinum. *Menz. Tr. of Linn. Soc. v.* 4. 76. *t.* 6. *f.* 4. *Hedw. Sp. Musc.* 89. *t.* 18. *f.* 6—10. *Relh.* 415. *Sibth.* 306. *Abbot.* 232. *Ehrh. Crypt.* 82. *Pl. Off.* 180.

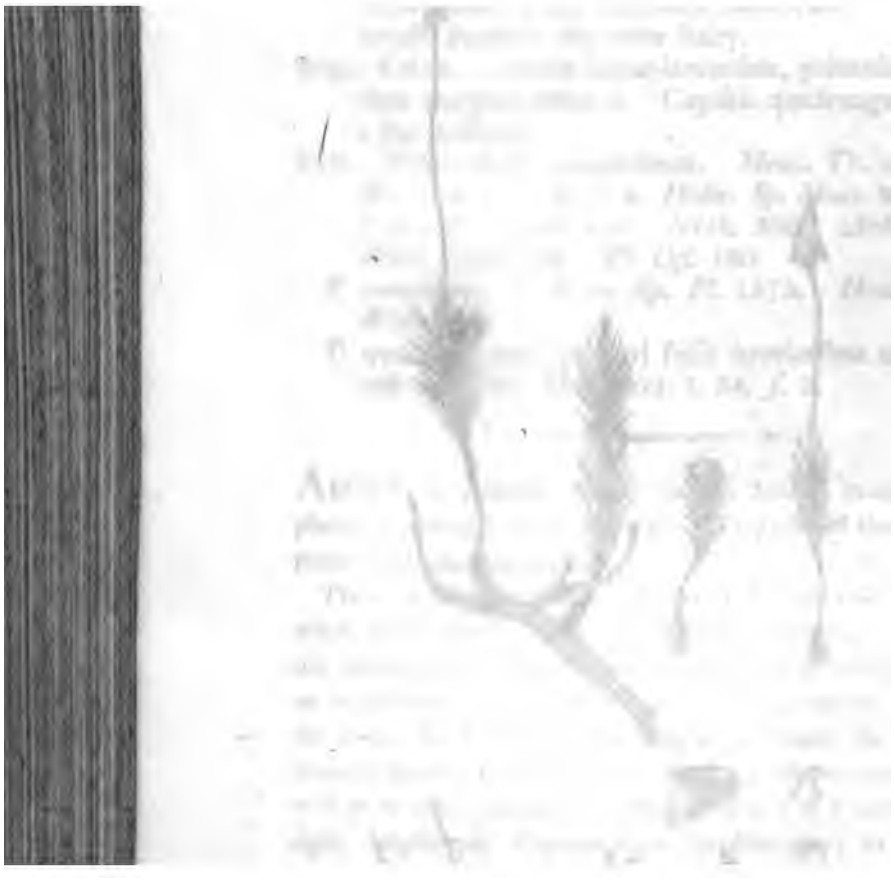
P. commune, β. *Linn. Sp. Pl.* 1573. *Huds.* 469. *With.* 795.

P. quadrangulare, juniperi foliis brevioribus et rigidioribus. *Dill. Musc.* 424. *t.* 54. *f.* 2.

ABOUT as common as the last in heathy mountainous places, ripening its fruit in April. We gathered these specimens on Hampstead heath.



Aug.t 1 1803 Published by Js Sowerby London



POLYTRICHUM strictum.

Close-leaved Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves lanceolate; their margins inflexed, entire. Capsule quadrangular, on a flat pedestal. Stem branched.

SYN. Polytrichum strictum. *Menz. Tr. of Linn. Soc. v. 4. 77. t. 7. f. 1. Sm. Fl. Brit. 1376. Hull. 247. Turn. Musc. Hib. 83.*

A NATIVE of dry, barren, mountainous places. We have it from Scotland, by favour of Mr. G. Don, as well as an authentic specimen from Mr. Menzies. The branched stem, with a greater quantity of soft white woolly down about the roots, and the more upright or close position of the leaves, are supposed to constitute a specific difference between this and *P. juniperinum*, *t.* 1200. The branches moreover are sometimes very long, and from the close-pressed leaves, at least in dry weather, look very slender, with a pale, more red or rusty aspect than is observable in the *juniperinum*. Nevertheless, we are inclined, with Mr. Turner, to suspect it a variety only, though certainly a remarkable one. The tips of the leaves are slightly serrated, but on that we dare not lay any great stress in this case.

POLYTRICHUM alpinum.

Alpine Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a fine undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves lanceolate-awlshaped, finely serrated. Capsule ovate, drooping, with a top-shaped pointed. Stem branched.

SYN. Polytrichum alpinum. *Linn. Sp. Pl.* 1573. *Sm. F. Brit.* [illegible]. *Hedw. Sp. Musc.* 92. *Menz. Tr. of L. Soc.* v. 4. 53. *Huds.* 470. *With.* 797. *Hull.* 245. *Light.* 703. *Turn. Musc. Hib.* 85. *Dicks. H. Sicc. fasc.* 12. 19. *Ehrh. Crypt.* 2.

P. alpinum ramosum, capsulis e summitate ellipticis. *Dill. Musc.* 457. t. 55. *f.* 4.

A native of the highest mountains of Britain, as Snowdon, Ben Lomond, &c. The specimen here delineated was gathered by the late Mr. W. Brunton, in June 1803, on Moss Dale Fell, Wensley-dale, Yorkshire. The capsules are produced in succession throughout the summer.

Pub. 1 Feb. 1818 by Sir J. Smith &c. London.

POLYTRICHUM urnigerum.

Urn-headed Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer Fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves lanceolate, finely serrated. Capsule cylindrical, erect, without a pedestal. Stem branched, fastigiate.

SYN. Polytrichum urnigerum. *Linn. Sp. Pl.* 1573. *Hedw. Sp. Musc.* 100. *t.* 22. *f.* 5—7. *Menz. Tr. of Linn. Soc.* v. 4. 81. *With.* 797. *Hull.* 248. *Lightf.* 703. *Dicks. H. Sicc. fasc.* 12. 20.

P. alpinum β. *Huds.* 471.

P. ramosum, setis ex alis urnigeris. *Dill. Musc.* 427. *t.* 55. *f.* 5.

THIS does not unfrequently occur in a dry loose soil on the mountains of Scotland and Wales. Specimens from which

Sept.r 1. 1803. Published by Jas. Sowerby. London

135.

POLYTRICHUM sexangulare.

Six-sided Hair-moss.

CRYPTOGAMIA Musci.

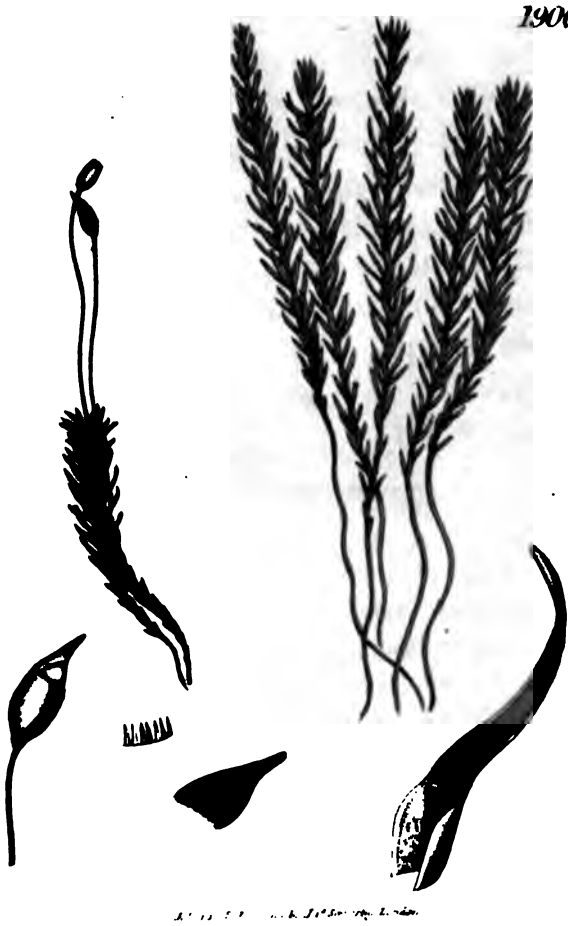
GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Stem simple. Leaves linear-lanceolate, beardless, their edges and keel quite smooth and entire. Capsule inclining, ovate, with six angles, contracted at the base, without a pedestal. Fringe of sixty-four teeth.

SYN. Polytrichum sexangulare. *Swartz in Schrad. Journ. v.* 2. 174.

ONE of the most curious acquisitions of Messrs. Turner and Hooker, who gathered it on Ben Nevis in their last-year's journey to Scotland, but not in fructification. The annexed specimen in fruit was sent us long ago from the Saltzburg alps of Germany, by our much-esteemed and very liberal correspondent Dr. Schrader, with whom in the present disordered state of the world we can have no communication.

Mr. Flörk, it seems, an eminent alpine botanist, first found and named this species of *Polytrichum*. It is known by its leaves being perfectly smooth and entire both at the edges and keel, linear-lanceolate, slightly incurved, channelled above, convex beneath, without any terminal hair. Its capsule is ovate and 6-sided, contracted at the base so as to resemble an *apophysis*, but we think it has none. Veil double. Lid awl-shaped. Fringe of 64 minute white slender teeth standing in pairs.



136.

POLYTRICHUM subrotundum.

Dwarf Round-headed Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: inner a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves lanceolate, obtuse, entire, rigid. Capsule turbinate, nearly upright. Stem very short.

SYN. Polytrichum subrotundum. *Huds. ed.* 1. 400. *Sm. Fl. Brit.* 1378. *Menz. Tr. of Linn. Soc. v.* 4. 68. *Hull.* 247. *Turn. Musc. Hib.* 89.

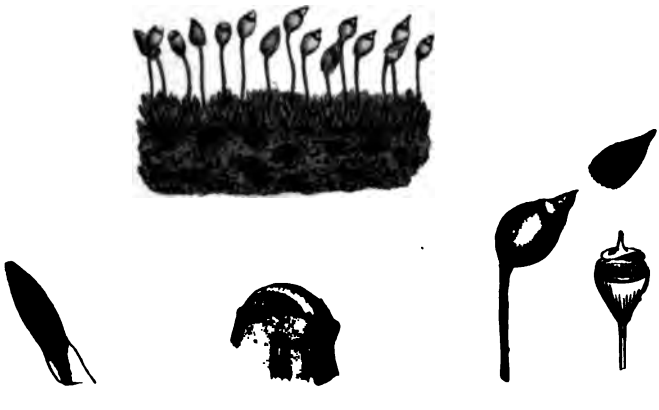
P. pumilum. *Swartz. Musc. Suec.* 77 and 108. *t.* 9. *f.* 19. *Hedw. Sp. Musc.* 97. *t.* 21. *f.* 7—9.

P. nanum, capsulis subrotundis galeritis, aloes folio non serrato. *Dill. Musc.* 428. *t.* 55. *f.* 6. A—F.

COMMON on heaths and sandy or loamy banks, bearing its capsules in the winter or early spring.

The root consists of fine dense woolly fibres, and is presumed to be annual. Stem scarcely any. Leaves numerous, of a dark dull green, rigid, thickish, oblong or lanceolate, obtuse, beardless, channelled, for the most part quite entire, the lowermost only being sometimes toothed at the summit. Fruit-stalk solitary, not an inch high, nearly straight, reddish brown, thickened at the top. Capsule almost erect, roundish when young, short and turbinate, with a very wide mouth; when old, a little oblique. Fringe of 32 slender teeth, soon turning black. Lid convex, red-edged, with a curved beak, which is conical when young, as in some other species. Veil double, the outermost yellowish brown.

Mr. J. D. Sowerby has observed that what is above called the inner fringe is more properly the membranous base of the lid, often attached to the column by its centre; and that there seems in this, as well as in *P. undulatum*, *t.* 1290, a real membranous *peristomium* within the teeth. This gives quite a new idea of the generic character.



July 1. 1806. Published by Jas. Sowerby, London.

137.

POLYTRICHUM nanum.

Slender Round-headed Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves linear, obtuse, slightly serrated. Capsule turbinate, drooping. Fruit-stalk zigzag. Stem very short.

SYN. Polytrichum nanum. *Hedw. Sp. Musc.* 95. *Crypt. v.* 1. 35. *t.* 13. *Menz. Tr. of Linn. Soc. v.* 4. 69. *Sm. Fl. Brit.* 1379. *Huds.* 470, β. *Hull.* 247. *Relh.* 416. *Sibth.* 306. *Turn. Musc. Hib.* 89. *Ehrh. Crypt.* 54.

P. subrotundum. *Curt. Lond. fasc.* 2. *t.* 68. *With.* 796. *Abbot.* 232.

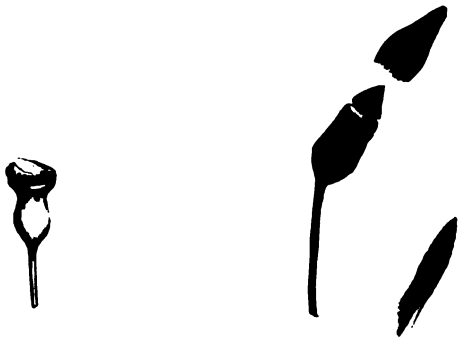
P. nanum, capsulis subrotundis galeritis, aloes folio non serrato. *Dill. Musc.* 428. *t.* 55. *f.* 6. G—L.

P. minus, capsulis subrotundis, calyptrâ quasi lacerâ coronatis. *Raii Syn.* 91.

Mnium polytrichoides α. *Linn. Sp. Pl.* 1576.

FREQUENT in dry heathy places, flowering in the early spring.

Root supposed to be annual. Whole plant much like *P. subrotundum*, except that it is somewhat larger, the leaves narrower, for the most part serrated, though obscurely, and less rigid than in that species. The fruit-stalk is nearly an inch and half high, slender, wavy or zigzag, twisted when dry. Capsule more or less drooping, rather more oblong than in the last-mentioned species. Fringe as in that, with a similar internal membrane.



Tab. 1362. Pub. 2nd Nov. 1st Ser. Smith. London.

138.

POLYTRICHUM aloides.

Dwarf Long-headed Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves lanceolate, obtuse, rigid, serrated towards the top. Capsule cylindrical, oblique. Stem unbranched.

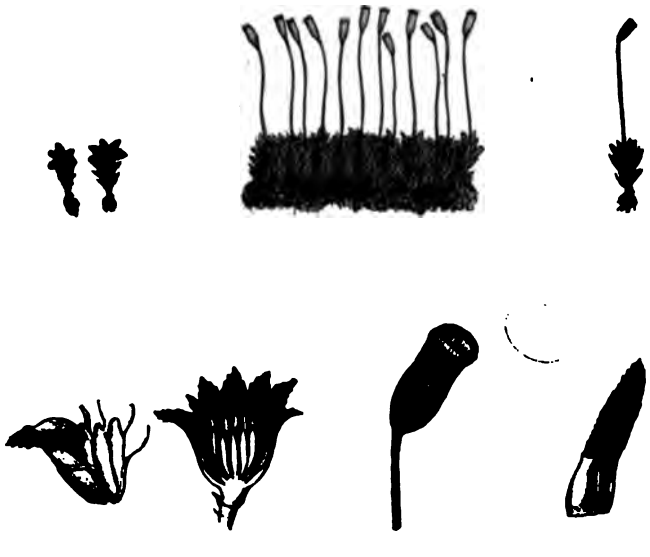
SYN. Polytrichum aloides. *Hedw. Sp. Musc.* 96. *Crypt. v.* 1. 37. *t.* 14. *Menz. Tr. of Linn. Soc. v.* 4. 70. *Sm. Fl. Brit.* 1380. *With.* 796. *Hull.* 247. *Sibth.* 307. *Turn. Musc. Hib.* 88.

P. nanum. *Huds.* 470, α. *Lightf.* 701.

P. parvum, aloes folio serrato, capsulis oblongis. *Dill. Musc.* 429. *t.* 55. *f.* 7.

Mnium polytrichoides β. *Linn. Sp. Pl.* 1577.

FREQUENT on rather moist and shady banks near rivulets, bearing capsules in April or May, sometimes much later in



Sowerby del. Published by Jas. Sowerby, London.

POLYTRICHUM Dicksoni.

Dwarf Short-stalked Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* swelling. *Outer fringe* of 32 or 64 short, flat, incurved teeth: *inner* a circular, transverse membrane, attached to the points of the former. *Veil* generally double; the outermost hairy.

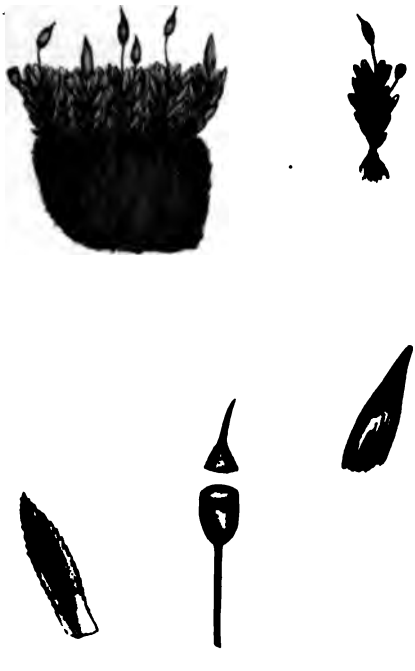
SPEC. CHAR. Leaves linear-lanceolate, obtuse, rigid, serrated. Capsule cylindrical, erect. Lid conical, taper-pointed. Stem mostly simple.

SYN. Polytrichum Dicksoni. *Turn. Musc. Hib.* 90. *t.* 10. *f.* 2.

FOR specimens of this moss, gathered on sandy banks near Yarmouth in April 1805, we are obliged to Mr. Turner, who also received it from Ireland, as mentioned in his work on Irish Mosses, and who has named it after its original observer Mr. Dickson.

It is nearly allied to several small species of its genus, which we have not yet had an opportunity of figuring. We shall therefore describe it without referring to those species.

Root of many dense woolly fibres, probably perennial. Stems half an inch high, erect, simple or slightly branched, leafy. Leaves crowded, rigid, dark green with a tinge of purple, smooth, rather spreading when wet, a little incurved when dry; they are nearly linear, obtuse, keeled, their margin and keel serrated. Fruitstalks red, not much exceeding the leaves in length. Capsule quite erect, of a short cylindrical form, rounded at the base, smooth, purplish or glaucous. Fringe red, of about 32 teeth. Lid when young and moist conical, with a taper point; when dried the base becomes contracted and depressed. Outer veil composed of dense brown hairs.



June 1 1806 Published by G. & S. Kearsley, London

1140.

POLYTRICHUM rubellum.

Reddish Dwarf Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves lanceolate, bluntish, serrated in the margin and keel. Capsule cylindrical, oblique. Stem branched.

SYN. Polytrichum rubellum. *Menz. Tr. of Linn. Soc. v.* 4. 79. *t.* 7. *f.* 3. *Sm. Fl. Brit.* 1381. *Hull.* 248. *Turn. Musc. Hib.* 87.

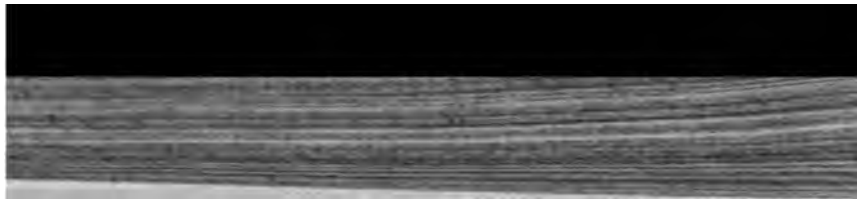
P. aloides. *Ehrh. Crypt.* 45.

GATHERED in April 1808, by Mr. G. B. Sowerby, in a wood at Darent, near Dartford, Kent; a spot celebrated for affording many rare insects as well as plants, having been much investigated by the late Mr. Lewin, who for some time resided there.

The stem of this species is reddish, much more elongated than in *P. aloides*, *t.* 1649, and frequently branched or subdivided. Indeed the whole plant is taller and larger. Leaves more curled and twisted when dry, serrated nearly throughout, as is a great part of their keel. Fruitstalks commonly an inch and half, sometimes 2 inches, long, twisted, red. Capsule a little oblique, cylindrical inclining to ovate, its mouth slightly dilated. Teeth 32. Lid short, pointed, most conical when young, as in others of this genus.

Most authors have not distinguished this from *P. aloides*.

Sept^r: 1808. Published by Jno Caverly, London



141.

POLYTRICHUM hercynicum.

Incurved Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer Fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

SPEC. CHAR. Leaves linear, mostly entire, incurved when dry. Capsule ovato-cylindrical, erect. Veil single, hairy when young.

SYN. Polytrichum hercynicum. *Hedw. Sp. Musc.* 94. *Crypt. v.* 1. 40. *t.* 15. *With.* 797. *Hull.* 248.
Bryum incurvum. *Huds.* 479.

A RARE inhabitant of the Welch and Scottish mountains, for specimens of which we are obliged to Mr. Griffith, and to its original discoverer the Rev. H. Davies. It bears fruit in July.

Root perennial, densely woolly. Stems in tufts, from one to three quarters of an inch in height, mostly simple. Leaves dull-green, rigid, linear, channelled, rather pointed, for the

Capt. Ross, Published as the Act directs, London.

POLYTRICHUM undulatum.

Undulated Hair-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Outer Fringe* of 32 or 64 short incurved teeth: *inner* a flat undivided membrane. *Veil* generally double: the *outer* hairy.

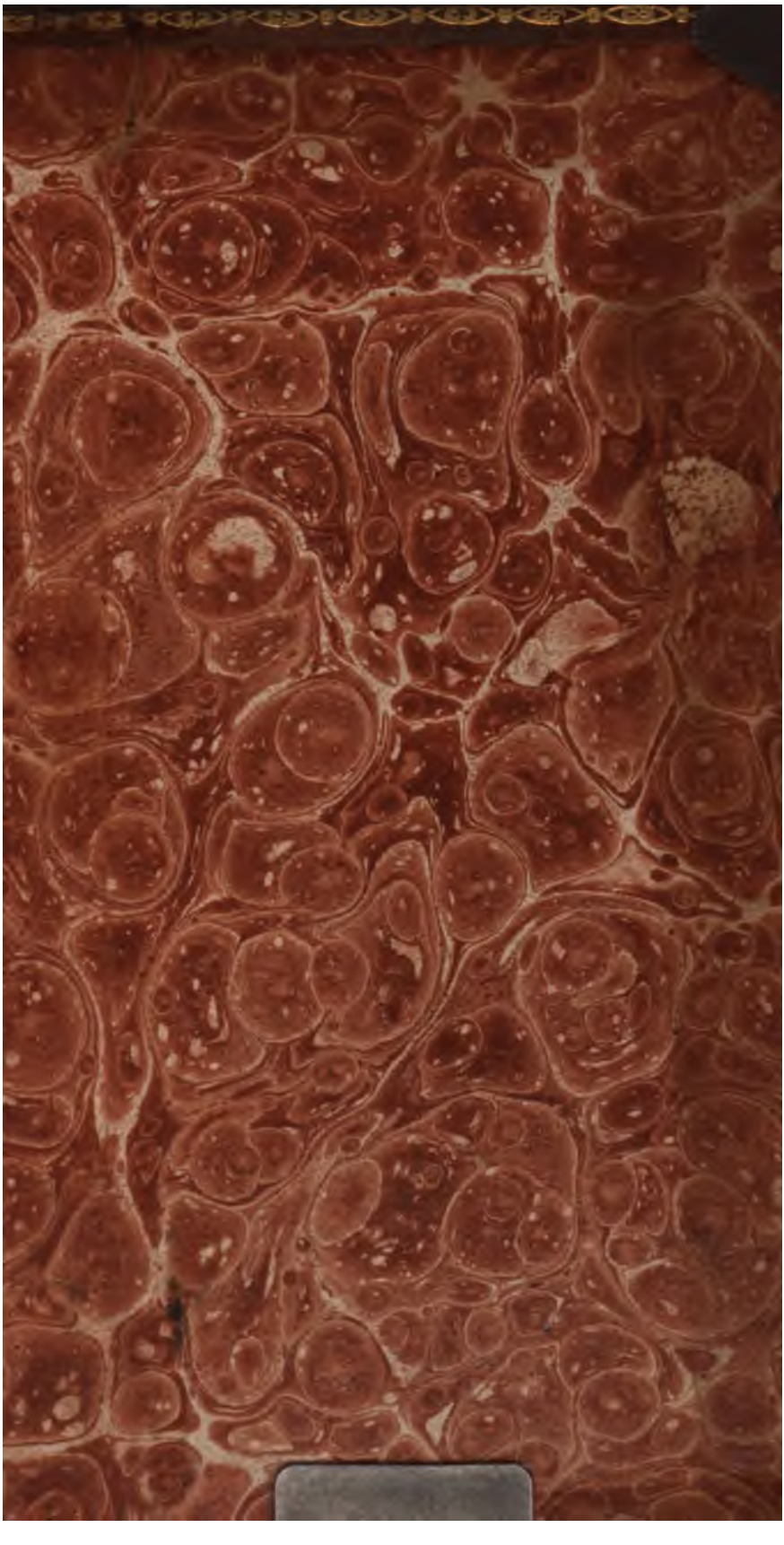
SPEC. CHAR. Leaves lanceolate, serrated, crisp when dry. Capsule cylindrical, drooping. Veil rough at the point.

SYN. Polytrichum undulatum. *Hedw. Sp. Musc.* 98. *Crypt. v.* 1. 43. *t.* 16, 17. *Relh.* 416. *Sibth.* 307.

Bryum undulatum. *Linn. Sp. Pl.* 1582. *Huds.* 479. *With.* 836. *Hull.* 265. *Abbot.* 243. *Curt. Lond. fasc.* 1. *t.* 70. *Dichs. H. Sicc. fasc.* 10. 19.

B. phyllitidis folio rugoso acuto, capsulis incurvis. *Dill. Musc.* 360. *t.* 46. *f.* 18.

B. capitulis oblongis rubentibus, foliis oblongis angustis pellucidis rugosis. *Raii Syn.* 95.

FREQUENT on shady sanby banks under hedges, and in groves, ripening its capsules in February and March.

Oct. 1 1803 Published by Jas Sowerby London